This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

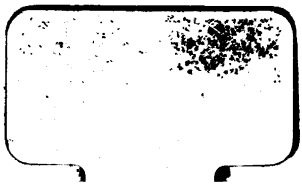
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

METHOD AND MEDICINE.

DR. FOSTER.



METHOD AND MEDICINE.

An Essay.

BY

BALTHAZAR W. FOSTER, M.D.,

&c., &c.,

PROFESSOR OF MEDICINE IN QUEEN'S COLLEGE,

PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM.

LONDON:

JOHN CHURCHILL & SONS, NEW BURLINGTON STREET.

1870.

151. m. 164.

BIRMINGHAM:
PRINTED BY JOSIAH ALLEN, JUN., LIVERY STREET.

The following paper originally appeared in a volume of Essays published by the Members of the Birmingham Speculative Club.

B. W. F.

METHOD AND MEDICINE.

A celebrated physiologist recently began one of his lectures with the assertion that "la médecine scientifique" did not exist; and not very long after, a distinguished French surgeon expressed in the pages of the album-number of the *Figaro* his satisfaction at the renunciation of scientific methods in the study of surgery. Two such remarkable statements naturally excited much attention. They were greedily seized upon by sprightly journalists, whose pens, like the hands of Ishmael of old, waging war against every one, rejoiced to find in the unsatisfactory position of medicine a suitable object for attack. Paris soon knew all these writers could tell of the shortcomings of medicine, and the bruit of the discussion reached even London ears. Medical questions always excite a certain amount of general interest, and for the more curious portion of the public they possess a

peculiar kind of fascination. It is remarkable how many persons profess to know a little—some, indeed, a great deal—about medicine, whose public pursuits or private studies have never led them even to the confines of the subject. Few reach a certain age without considering themselves competent to dogmatise, if not to practise, as physicians; and are never willing to admit the alternative of the familiar proverb as to physic or folly at forty. To all such readers the newspaper comments on the opinions of MM. Claude Bernard and Nélaton were of great interest, and to some they were possibly a confirmation of their own assumed ability to comprehend the art of cure.

To others, these opinions, if not so pleasantly reassuring, were no less interesting; for the progress of medicine touches each one more or less nearly; since on such progress, however slight, may depend issues of the most momentous import. To these it was really alarming to learn in the course of a few months that scientific medicine was a fable, and, moreover, that the very methods of modern science were unsuited to the investigation of disease. The absence of science was bad enough, but admitted, at all events, the possibility of improvement. The second statement, however, condemned the very methods by which earnest workers had striven to advance, and demanded the abandonment of all those instruments of precision of which they had been so proud. The fortress of knowledge was no longer to be assailed

by the Chassepot and the Armstrong gun, but must be breached by the bow and arrow and the catapult. Modern methods have not made medicine perfect; therefore, says Nélaton, fall back on the older methods, which, he might have added, left it very imperfect. Medicine has not yet reached the position of a strictly experimental science, and the physician is consequently unable to modify and control the phenomena of disease with the same accuracy that the chemist can regulate the combination and decomposition of his chemicals: therefore Claude Bernard denies the existence of scientific medicine. It may not be without profit to consider these statements by the light which the history of medicine affords. In so doing we shall see how the progress of this branch of knowledge has been retarded by false method; and the lessons derived from the study of past error may teach that better method by which the development of the scientific medicine of the future may be hastened.

Taking its origin in that instinct which impels us to offer aid to the suffering and to endeavour to mitigate pain, medicine must have existed, as Celsus has said, universally and from the beginning of time. The first successful attempts in allaying pain must have appeared so miraculous, that their author no doubt acquired a higher position in the esteem of his kind than has ever since fallen to human lot. Reverenced,

and possibly worshipped during life, he was deified at death. The deification demanded an altar, the altar required priests. Thus we find the priesthood surrounding the cradle of medicine, as we everywhere find them at the origin of civilization and the birth of knowledge. In the temples they fostered the small beginnings of the healing art; but called upon to exercise greater powers than they possessed, they cultivated credulity by a judicious exhibition of the marvellous. The unlimited faith of the people tempted them too strongly; they promised all that was asked, and, like other charlatans, they had great success. As priests serving a divinity they avoided all direct responsibility; thus in failure their reputation was not compromised, while in success it was established. They never forgot that the bolts of Jove fell on Æsculapius for his boldness in restoring the dead to life; they, on the contrary, exercised their powers with singular discretion, and saved themselves from the temptation to imitate their master by driving the dying from their doors. In this last respect quacks of more recent date have been equally discreet.

If in the charge of the priests of Apollo and Æsculapius, medicine did not advance, the practice of the art was nevertheless kept alive, until, in the steady progress of human knowledge, better hands were prepared to receive it. The temples of Æsculapius—Asclepia, as they were called—long maintained their reputation; and the priests, the Asclepiadæ, many of whom were descendants of

Æsculapius, did some service for their successors by preserving records of the cases of their patients on the votive tablets which adorned the temples' walls. The Asclepia built on very healthy sites, often near to some mineral spring, were indeed convalescent institutions from which the incurable were excluded. The health-resorts of our own day had their prototypes in these shrines dedicated to the tutelary divinities of health. The celebrity of some of the temples attracted to them large numbers of patients, and in this way the first opportunities occurred of studying disease systematically. The rich fields of observation thus formed, and the skill of the priests in recognizing and treating the maladies of their votaries, made these shrines the earliest schools of medicine. The Asclepiadæ, who were the first teachers, soon had competitors; and schools of medicine and philosophy began to be established independently of the sacerdotal influence. Of these the most celebrated was that of Crotona, and its most illustrious teachers were Democedes and Pythagoras (580 B.C.).

The bitter opposition with which these new seats of learning were viewed by the priests, lasted for many generations; and we may trace it in the charge made long after against Hippocrates, of stealing the votive tablets and burning the temple of Cos. But in spite of the opposition of the Asclepiadæ the study of medicine was continued by the philosophers, who taught the results of their own personal experience, and recorded, as far as possible, facts and traditions. The

priests for the most part neglected their opportunities of study, and the independent workers of the other school observed phenomena carefully but not fruitfully; for until late in their history they did not reach even the crudest application of induction.

The mysterious workings of nature were to the minds of both schools the results of the activity of supernatural beings, and as such were regarded as beyond the powers of the human mind. Every attempt to treat disease required the direct interposition of a divinity, without which the skill of priest or philosopher was alike in vain. The gods sent disease, and the gods possessed the remedy. Such was their creed. They held it blindly; but even in the time of their greatest darkness, protests were not wanting. Experience had taught men something, and every attempt which the philosopher led by his experience made to relieve disease, was a protest against the paralysing influence of such a creed, and every tittle of success which attended such attempts hastened its fall. The discoveries made by instinct, or offered by chance, were seized upon and developed by reason. The philosophers soon found that nature might be interrogated without danger, and that human curiosity was not always punished by the gods. In their inquiries, "de naturâ rerum," the first investigators analysed the universe. The earth which supports us, the air which surrounds us, the water which bathes the earth, and the fire which lends its heat, were to them in turn universal principles; and the phenomena of

nature were the result of the harmony or the antagonism of the attributes of these elements. These first students of nature, however barren their speculations, did great work. They first asserted the right of man to investigate nature and explain her phenomena without reference to a deity; and they thus began that emancipation of the intellect from the tyranny of the supernatural, which it was the chief glory of their successors to complete.

Medicine was so closely bound up with the philosophy of this period, that it could not fail to acquire new vigour from the free spirit of inquiry which began to prevail. The philosophers of all the schools were busy in making observations, instituting experiments, and collecting facts; and although they erred in the haste with which they formed theories, yet their pursuit of truth was not barren. They began to inquire into the nature and causes of disease, and these inquiries became in the hands of Pythagoras the foundation of hygiene and etiology. He held that the healthy equilibrium of all the functions of the body was only to be maintained by the strict regimen to which he submitted his disciples. To Pythagoras, health was the result of moderation in diet, disease the effect of excess. To him we also, according to Celsus, owe the first knowledge of critical days in disease, the theory of which was the first application of the science of numbers to medicine. The vital principle of Pythagoras was heat,[1] and his explanation of the phenomena of life has found a more elaborate

form in the doctrines of the vitalists of modern times. The school of Pythagoras also endeavoured to learn something of the structure and functions of the body by the dissection of animals, and thus made the first discoveries in anatomy, and hazarded the first speculations in physiology. The doctrine of temperaments and of heredity, and the theory of generation here found their first exponents. Anaxagoras of Clazomenæ, to whom Aristotle attributes the doctrine of the immortality of the soul, also in his school advanced medicine by encouraging the study of anatomy, and speculating on the causes of acute diseases, which he attributed mainly to bile.[2] Democritus of Abdera was also another who prepared the way for Hippocrates by his works on epidemics; and he anticipated the application of morbid anatomy to the explanation of symptoms, by seeking for alterations in the viscera of animals to account for death. All these schools treated disease in a simple fashion; their materia medica was chiefly vegetable, but dietetics were the basis of their treatment.

This knowledge was widely diffused, and in every training school of ancient Greece accidents were treated according to the principles taught by the philosophers. The opportunities for treating diseases and injuries in the gymnasia were by no means infrequent, and consequently some of the gymnasiarchs, as the chiefs of these training schools were called, acquired great reputations as healers of disease. One of them, Herodicus, became the first physician of his

time, and had the good fortune to teach Hippocrates. His chief merit consisted in the attention he paid to diet and general hygiene, and the effects of his teaching may be traced in the writings of his immortal pupil. On another account he perhaps deserves mention, for he is said to have strictly insisted on payment for his advice.

Medicine gained much from the philosophers, both as an art and as a science. They indicated the methods by which it might be advanced, and by their speculations and experiments made the time ripe for the appearance of the great master—Hippocrates. It is a very interesting fact that the family from which he sprung repudiated, at an early date, the ignorant pretensions and mummeries of the priesthood, and practised medicine without claiming any special sanctity. With a noble candour, this family declared its knowledge to be the result of experience, and founded its practice on the observation of disease.

During the three hundred years it flourished, no less than seven of its members bore the name of Hippocrates, and as several of them contributed to the literature of medicine, it can easily be imagined that the commentators have had a fine field for the exercise of their ingenuity. So successful have they been in their work, that some authors have even denied that any such person as Hippocrates ever existed,[3] and a theory has been advanced that the Hippocratic writings are the product of a school. There is little doubt that several of the treatises bearing the name

of Hippocrates were written by his disciples, but the authenticity of the works on which the fame of the great physician rests has been proved. Of the seven of the one name, Hippocrates the Great was the second, and is said to have been a lineal descendant of Æsculapius in the eighteenth generation. Born (460 B.C.) of a family of physicians, from his earliest years he was attracted by those subjects which engrossed the attention of all about him. From his father, and from his master, Herodicus, he learned all the speculations of the Pythagoreans and the practice of the gymnasiarchs; and the accumulated experience of his family was at his command. With the instinct of true genius, he quickly saw that in medicine, probably more than in any other subject, the only sure basis of knowledge is the observation of actual phenomena, and that all doctrines and speculations should be absolutely based on observed facts. This idea once clearly conceived soon bore fruit. In the archives of his family, collected during many generations, and in the votive tablets in the temples of his great ancestor, he found records of disease extending over hundreds of years. These votive tablets, stating the nature of the disease and the treatment of each patient, were, indeed, the rude beginnings of that system of case-taking which Hippocrates founded, and all physicians have since followed. There was this difference, however, that the votive tablets allowed by the priests only recorded the successful cases, while Hippocrates recorded his failures also. It may be said

to the honour of medicine that his noble love of truth has always found imitators: so alas! has the selfish reticence of the priests. The mass of materials thus ready to his hand he carefully arranged and interpreted by the light of his own experience. Every speculation, every hypothesis, was submitted to the crucial test of observation, and no conclusion was adopted which this test did not confirm. Face to face with the phenomena of nature, he allowed no preconceived notion to lead him astray or warp his judgment, but reverently and patiently his great mind gathered together and classified its facts with a loyalty to truth never surpassed. Thus his works are splendid monuments of the most patient study and the most accurate observation.

Among the most remarkable of his writings are those *On Fractures* and *On the Articulations*, which especially arrest our attention by the large knowledge of anatomy which they exhibit. Although human anatomy was not practised in his time, Hippocrates must have had a very thorough aquaintance with the bony skeleton to have written two treatises so full of accurate knowledge of osteology and sound surgery.

The physical philosophy of the period naturally served as the basis of his theory of medicine. Many of the phenomena of life found their explanation in the doctrine of the elements of things; and the general belief in the existence of a power which directly controls all things in their natural state, and restores them when preternaturally disordered, led to the in-

vention of the hypothesis of the principle which he called Nature. This general principle he regarded as the great restorative power in disease, a true vis medicatrix. "Nature," as his school said, "is the physician of diseases."

The four elements of which the body was supposed to be formed led him to elaborate the doctrine of temperaments. These he made to depend on four humours—the blood, the phlegm, the bile, and the atrabile; and excess or defect in any of these was the immediate cause of disordered health. This theory was the beginning of that humoral pathology which from time to time has ever since ruled medical thought. In his pathology he was seldom tempted to speculate on any but the immediate causes of disease: when he did so he was remarkably sound, as is proved by his views on the epidemic constitutions of the seasons, which still hold good.

There is one other point in his pathology most worthy of note; it is this, that he founded it on physiology. He saw, it may be dimly, but still he saw, the great law which governs modern progress: that in disease we have to deal with no new forces but only with the variation of physiological action. This led him to study the natural history of maladies, and to perfect the doctrine of crises or the natural tendency of certain diseases to a cure at certain periods. And on this observation of the course of disease when uninterfered with, he built up his treatise on prognosis, which was the first formal exposition of the laws which

regulate the succession of morbid phenomena. "He who would know correctly beforehand those that will recover and those that will die, and in what cases the disease will be protracted for many days, and in what cases for a shorter time, must be able to form a judgment from having made himself acquainted with all the symptoms, and estimating their powers in comparison with one another. . . . . One ought also to consider promptly the influx of epidemical diseases and the constitution of the season. . . . . But you should not complain because the name of any disease may not be described here, for you may know all such as come to a crisis in the aforementioned times, by the same symptoms."[4] Such are the words of Hippocrates at the end of his Prognostics, and the last sentence is a clear statement of a reduction of the phenomena of disease to such laws as give prevision. In other words, the development of medicine as a science of observation was the great result which the physician of Cos attained.

In the treatment of disease Hippocrates did little. He founded the school which is now-a-days called the expectant, and which trusts to assisting nature and aiding the tendency to recovery, rather than to blind attempts to cut maladies short. To Hippocrates, as to many of the moderns, nature was the great power for good in disease.

"Ipsa suis pollens opibus, nil indiga nostri."

He had a tolerably copious materia medica, but he

used it cautiously, now and then only endeavouring to correct some unfavourable symptom by prescribing on the principle that contraries are the cure of contraries. His management of the diet of his patients was remarkably advanced; and the sagacious observation which regulated his practice in this respect has rendered his essay *On Regimen in Acute Diseases* a model of its kind. Of his other works those *On Epidemics*, *On Airs, Waters, and Places*, and the *Aphorisms*, are the most famous. The treatise *On Airs, Waters, and Places*, is especially noteworthy as the first formal exposition of the principles of public health. Nay, more: treating as it does of the effects of climate and locality on man's moral and physical nature, and of the influence on his character of the institutions under which he lives, it was the beginning of social science, and the anticipation of that "theory of the media" which Auguste Comte has elaborated in his *Positive Philosophy*. The reader of Buckle's *History of Civilization* will recognize in the chapter on the "influence exercised by physical laws over the organization of society and the character of individuals," a modern development of the sketch which Hippocrates left. The *Aphorisms*, pronounced by Suidas to be "a performance surpassing the genius of man," have in all ages been recognized as the most splendid monument of the genius of their author. Models of condensed thought and brevity of expression, pregnant with the rich results of the life-long observation of the greatest of observers, these aphorisms have won the admiration of all time.

Such was Hippocrates the Great, whom some have condemned as separating medicine from philosophy. Was he not rather the first who saw that his predecessors had lost themselves in the immensity of the too vast and comprehensive plan which they had embraced, and that the division of labour was the necessity of progress? In this sense he did separate medicine from philosophy; not degrading it, but raising it to the level of the highest branch of knowledge, by giving it that method of induction which was the foundation of all science. He first collected the materials hitherto formless, and gave them form. He first constructed that classification of facts in medicine which based upon analysis and comparison led to scientific generalization and the exposition of law. In a word, he founded that most fruitful of all methods, induction, which his great successor Aristotle adopted, and which the greatest of modern philosophers perfected. Judged by the dogmas he advanced, the claim of Hippocrates to the title of philosopher would be slight; but tested by the method he employed and the work he accomplished, he was in truth the first great medical philosopher—great among the greatest, in his own words—*ἰητρὸς γὰρ φιλόσοφος ἰσόθεος.*

The inductive method raised medicine from a purely empirical condition to the dignity of a science of observation. The limits of health and disease were fairly defined. The careful observation of symptoms led to the establishment of laws which enabled the physician to recognize any malady, and foresee its

course, crisis, and termination. Rules were framed for the use of remedies which were held to act by aiding the natural forces of the body, not by creating new forces; and the art of cure consisted in the art of aiding nature in her tendency to reëstablish health. Hippocrates studied disease as an astronomer the heavens, and was equally powerless to modify or control the phenomena he observed. Nature was the healer of diseases, and man must stand submissively by while she worked her will; at most he could aid her tendencies when favourable, and when unfavourable, he could only struggle feebly and blindly to restore her to a better course. This, the highest result of the medicine of observation, was not satisfactory to those who desired the power of mastering disease; they felt, as Asclepiades afterwards expressed it, that this medicine of Hippocrates was a mere meditation upon death—*θανάτου μελέτην*.

Even while the great master lived there were many who rejected this position for medicine; men who failed to descry in nature that kind and considerate mother of which he spoke, but, on the contrary, felt her to be a harsh and vicious stepmother against whose rule they must rebel. In the struggle with disease these men would be no passive observers: they longed for a greater and more active materia medica than the school of Cos gave them, and they found in the empirical administration of drugs the solace of a blind activity. It was not, however, till after the foundation (300 B.C.) of the great

school of Alexandria that circumstances occurred which gave these opinions their full power, and led to the establishment of the sect of the Empirics. It is a remarkable fact in the history of method that the splendid results which Hippocrates obtained by the application of induction, should have had so little influence in leading others to follow in his footsteps. This may be partly accounted for by the absence from his works of any formal exposition of his method. Aristotle, the son of a physician, was imbued with the inductive spirit of his predecessor, but he obeyed it less implicitly, and too often allowed his love of hypothesis to overrule his facts. The grand results arrived at by Aristotle were, however, insufficient to keep men in the slow and sure path of scientific caution, and so when the first great discoveries in human anatomy were made at Alexandria, the spirit of speculation ran wild. The great anatomists, Herophilus and Erasistratus, it is true, were not guilty of these errors. The men who made out the functions of the nervous system and of the lungs, and who almost reached the discovery of the circulation of the blood, recognizing as they did the relation between the vigour of the heart and the strength of the pulse, were too well trained by their anatomical studies to indulge in the fabrication of theories. They were, on the contrary, more inclined to discard all theory in their practice, and rely upon experience as their only guide.

That the practical aspect of medicine was not

lost sight of in the Alexandrian school is shown by the division of the art into the three branches of dietetics, pharmacy, and surgery. The first, the department of the physician, comprehended, besides the regulation of diet, every circumstance bearing on the preservation or restoration of health. The second, in addition to the preparation of drugs, included the treatment of ordinary cases of disease, and the performance of many of the less important operations in surgery, and answered to the province of the general practitioner of modern times. Surgery, which had previously, together with medicine, been in the hands of the ἰατρός, was now allotted to a special class of workers. This division of labour produced its best effects in the impulse it gave to surgery, which was practised by the professors at Alexandria with an amount of skill and boldness equalled by no other school of antiquity. The many discoveries in anatomy led no doubt to this great development of surgery, but unfortunately they also led to a vast amount of unfounded speculation.

The more sanguine investigators, dazzled by the revelations of the anatomists, began to believe that the victory of medicine over disease was at hand; and in their desire to hasten this consummation, they allowed their theories to outstrip their facts. A reaction was inevitable. The scepticism which Pyrrho had introduced into the philosophy of the time extended to medicine, and reached its highest development in the views of the Empirics. These men, wearied by the vanity of theory, and in despair of understanding

the mechanism of disease, even denied the value of the laws which Hippocrates had so carefully arrived at, and declared that it was only necessary to watch the phenomena of disease, to discover by the sole aid of experience what remedies are best fitted to relieve its symptoms. The nature and functions of the body generally, or of the parts affected, with the action of remedies upon it, and the changes in structure and function produced by disease constituted, in their opinion, a kind of knowledge impossible to attain, and even if attained unnecessary to guide them in practice. Their opponents, the Dogmatists, took the other view, and investigated what we call in the present day the general principles of physiology, pathology, and therapeutics. The latter school aimed at reaching truth by hypothesis and ratiocination; the Empirics would banish all ratiocination from their method, and reduce it to a simple observation of facts. The truth was on both sides. Leibnitz has said that systems are true in their affirmations but false in their negations, and this is profoundly true of these rival schools. "The boldest dogmatist professes to build his theory upon facts, and the strictest empiric cannot combine his facts without some aid from theory."[5]

This controversy, long slumbering, thus burst into all its fiery vigour in the Alexandrian school, and has never since died out. Disputants have always been forthcoming on either side, and when facts in support of their positions have failed, they have usually devoted themselves to throwing dust in the eyes of their

opponents, and obscuring truth by the introduction of verbal subtleties and barren refinements. On both sides a temporary triumph has too often been purchased at the costly sacrifice of truth, and thus the vigour which might otherwise have done much to advance medicine has rather acted as an impediment to its progress. The accidents of time have oddly enough left us by no means an equal legacy of the writings of the rival sects. Of all the wordy warfare which raged between them, the polemical productions of the Dogmatists remain in abundance, but not a single tract of the Empirics has survived. Celsus has given, however, in his remarks on the history of medicine, so candid and impartial an account of their views, that from his time to the present, a succession of zealous disciples has never failed. The standard of experience has never wanted a bearer; on the contrary, in every stage of the evolution of medicine great authorities have been proud to bear the colours of the Empirics to the van. Even in our own day, when it might have been thought that the brighter rays of science would have dissipated the mist, which in the past prevented the disputants from recognizing the presence of truth in both camps, a champion has been found, who speaks in no uncertain tone. Witness M. Nélaton:

"I am happy to see the rising generation refuse to follow those false appearances of exact and profound science borrowed almost exclusively from microscopical research, and attach itself to the study of surgery, based upon the great indications furnished by clinical observation. It is because they drew their inspirations from these principles that the great masters of the beginning of this century, and especially

Dupuytren, the most glorious amongst them, have given to the French school that legitimate renown which it still enjoys throughout the whole world." (6)

A nineteenth century reproduction of the opinions expressed by the Empirics some three hundred years before the beginning of the Christian era! Nay, M. Nélaton has done more, he has made the empiricism of his school more thorough than that of the strictest of the ancient sect. Modern invention has provided a power of vision which the ancients never dreamed of, and has enabled the moderns to study the results of disease with a thousandfold more accuracy, and detect morbid changes which were a thousand times too small for the unaided sight; and yet in his loyalty to the old method M. Nélaton refuses all. Possibly not without some show of reason. The marvellous precision which modern appliances have given to the study of the details of morbid processes may have led many to dwell too much on the discovery of apparently insignificant facts, and to lose themselves in the abyss of the infinitely little. While studying the shape of a cell some may have forgotten to observe the coarser progress of disease, and may have failed in that practical aptitude which is necessary to check its ravages. But surely the occasional abuse of a method is no argument against its use, and while the great problem of the origin of disease remains unsolved, and the fine distinctions which separate physiological development from morbid growth escape us, we ought to neglect no means by which these secrets can be wrung from

reluctant nature. In the present state of knowledge who is to decide on the value of new facts? however insignificant they may appear who is authoritatively to declare them worthless? When in 1832 Tiedemann discovered the *trichina spiralis*, and in 1835 Mr. James Paget finding it in a piece of human muscle gave the specimen to Professor Owen who described the parasite, these observers had apparently only made out with their microscopes an insignificant fact, and described the cause of a condition which was for many years afterwards regarded merely as a dissecting-room curiosity. But when, some thirty years later, Zenker demonstrated that this flesh-worm, in place of being a harmless parasite, was the cause of a most alarming, fatal, and hitherto inexplicable disease, the fact ceased to be so insignificant.

"When this flesh-worm was seen more than thirty years ago, it was little thought that the bit of muscle sent to Owen contained the germs of a disease which might be carried in a living pig from Valparaiso to Hamburg, and then kill almost the entire crew of a merchant vessel. It has been recently related that a pig so diseased was shipped at Valparaiso, and killed a few days before their arrival at Hamburg. Most of the sailors ate of the pork in one form or another. Several were affected with the flesh-worm, and died. One only escaped being ill."(7)

Surgery, based upon anatomy and dealing chiefly with alterations in the construction of the body, has had a much less arduous task to perform than medicine, which depends on physiology and has mainly to treat aberrations of function. The older method of unaided observation has on this account done more for the surgeon who deals with the simpler phe-

nomena, than it has for his colleague who has to deal with the more complex. It is, therefore, not surprising that it is as a surgeon that the modern representative of the Empirics has won his fame. A more advanced medicine will, however, greatly control the application of surgical methods to the treatment of disease. Cancer still yields only to the surgeon's knife; but the knowledge of its structure and affinities which the microscope has revealed to a great extent, will some day enable it to be treated in a more scientific way. In all such cases the necessity for surgery is the opprobrium of medicine. The time may justly be anticipated when the laws of its production will be so well known, that the development of cancer will be arrested and the surgeon's part forgotten. But such a day would never come if the means at hand for studying morbid processes were all cast aside, and man again took up the hopeless task of analysing the infinitely small beginnings of disease by his own unaided powers. It is true that the microscope has as yet but in few instances made disease more amenable to treatment; but we can hardly be said to be worse off than before its invention, since we are more intimately acquainted with many of the problems we have to solve.

No! M. Nélaton: the microscope is not useless, but it and all other similar aids to research may be unduly magnified until in the cultivation of a method, we forget the object of investigation. As a protest against this tendency, the letter in the *Figaro* was

true: in any other sense it was untrue. To deny the microscope to the surgeon would be, as M. Vernueil has said, as logical as to deny the telescope to the astronomer. Clinical observation depending on man's unaided powers played out all its forces some two thousand years ago; and now when all the collateral sciences are pressing forward to its aid with their reserve strength, it is no time to delay the advance by the policy of isolation. The "false appearances of exact and profound science" may have led some astray, and here and there one in his accuracy of observing details may have lost his power of comparing phenomena, and so mingled in hurtful confusion the important with the trivial. But over this one sinner shall we all sink our aspirations for a higher development of our art? No! through twenty centuries the answer has ever been the same; and that appearance of exact science has always been the beacon light which has cheered men on in their struggle with the obscurity of the unknown. The time for medicine to rest on clinical observation alone, as its only method, has passed away; it must still be the one great means of fitting a man to practise his art; but he will be no worse observer at the bedside because he has gone through the intellectual training which the collateral sciences afford: on the contrary, he will come to his daily task with his powers sharpened and with a vision more far-reaching in proportion to the exactness and extent of such training.

Simple observation has left us very powerless in

the prevention of disease, and still more powerless in its cure. "Medicina tota in observationibus," as Hoffmann defined it, was in his time, and is still, too narrow a foundation to support that superstructure of scientific medicine, which modern thought hopes to raise. The mere collection of facts can never constitute a science, but would simply allow medicine to crystallize in the form of an art, which each artist must learn for himself from the beginning, since his own personal experience must be the basis of his practice. We now seek to know more than the succession and relation of morbid phenomena, we look forward to being able to modify and control the phenomena at will. This power can never come to us by the cultivation of the empirical faculty alone; to gain it we must weld together the good of the method of the Dogmatists with the doctrines of the Empirics: "utrumque, per se indigens, alterum alterius auxilio viget." They who would oppose this union and confine us to observation narrowed à la Nélaton, would prevent the realization of this power, and their place in history is not in the nineteenth century, but rather at the beginning of our era.

Health and disease, the preservation of the one and the cure of the other, have composed the problem of medicine from all time. Let us for a moment consider what the solution demands. A knowledge of the laws which govern the phenomena of life in its

normal state, by teaching the necessary conditions, will lead to the preservation of health. The second part of the problem, the cure of disease, requires a knowledge of the conditions immediately antecedent to disease, and of the laws which determine the variation of vital phenomena. To preserve health we must be good physiologists: to restore it when disordered we must know also pathology and therapeutics. Medicine then in its widest sense is a triad of sciences, and only when the two first parts are well advanced can the third, therapeutics, be raised to a scientific form, since it depends on a knowledge of the action of remedies, both in the natural and morbid states.

The Dogmatists, therefore, when they asserted in opposition to the Empirics, that the study of the functions of the body in health and the changes produced by disease, as well as the action of remedies, were essential preliminaries to the practice of medicine, assumed a position which modern science upholds. This method of theirs was so far in advance of their knowledge of the subjects which they indicated as essential, that they unfortunately endeavoured to fill up the gaps by the aid of their imagination. Their opponents, in the strength of their contempt for all hypothetical explanations, therefore easily carried the day. Accordingly we find the first physicians of celebrity at Rome, belonging to the school of the Empirics. Rome curiously enough for six hundred years allowed no physicians to settle within her walls, but confined the treatment of disease strictly to the

priesthood. The worship of Æsculapius had been transferred to Italy about the time Hippocrates was born, but not without difficulty. The deputation sent to Greece to transfer the person and worship of the god, found the deity unwilling to be carried off, and he was captured only by stratagem, and brought in the form of a serpent to Italy.

About a century before the commencement of the Christian era, several physicians had settled at Rome, and doctrines other than those of the Empirics began to find acceptance. The disputes between the rival schools became as fierce as at Alexandria, and new systems of medicine were constructed with an equally fatal celerity. The result was the degradation of medicine, which became a tissue of the most frivolous subtleties.

The merit of the physician was no longer estimated by his knowledge of disease, but rather by the number and complexity of his recipes. But when the battle of the schools was at its highest, and medicine was at its lowest level, the illustrious Galen came upon the scene (165 A.D.). Professing to be the restorer of the medicine of Hippocrates, be soon became the despot of medical thought, and reigned for twelve centuries with an authority so great that men, rather than question his opinions, preferred to doubt the correctness of their own observations. He gave the teachings of Hippocrates a brilliant and systematic character, but in so doing he sullied their purity by the free introduction of hypothetical matter. He re-

stored medicine to the path of progress, and gave a true impulse to the workers of his time; but a long halt followed, for the night of the dark ages was at hand in which no man could work.

"Ibant obscuri solâ sub nocte per umbram."

About this time the philosophy of the east began to influence Roman thought, and the Jews who were the chief exponents of it gradually introduced their belief that all serious diseases were direct punishments from God, and that to attempt to cure them was to interfere with the course of divine justice. The miracles which the Founder of Christianity had performed in Judea, and that power over disease which He had transmitted to His Apostles, gave support to the doctrines of Jewish philosophy. The influence of the church, although it was exercised against the magic rites which had been introduced from the east, nevertheless favoured the tendency to superstition. The belief in the power and activity of supernatural beings was a doctrine of the early fathers, and they attributed the cures of diseases made by the Pagan physicians to the assistance of these evil spirits.[8]

In the same way we find all epidemics attributed to the influence of demons. Origen, for example, has the following:

"Et siquid audacter dicere oporteat, si quas hisce in rebus partes habeant dæmones dicemus, illis famem, arborum vitiumque sterilitatem, immodicos calores, aëris corruptionem ad perniciem fructibus afferendam, mortemque interdum animantibus et pestem hominibus inferendam tribui oportere. Horum omnium auctores sunt dæmones."[9] . . .

St. Augustine, also, speaks no less decidedly, as to the causes of the prevalence of epidemics:

"Accipiunt enim sæpe potestatem et morbos immittere, et ipsum aërem vitiando morbidum reddere." (10)

The church, however, by its teachings, did even more: it bade men no longer think of their bodies, but devote all their attention to spiritual concerns. The body and its ailments were to be despised. Diseases were no longer to be subjects of study, but were to be regarded as divine inflictions, sent to wean man from giving too much thought to his perishable frame. Some maladies were even esteemed to be proofs of sanctity; and the most loathsome one of all, leprosy, which was very prevalent among the early Christians, was referred by a father,(11) writing at a later date, to the permission accorded to the demon of disease to punish God's people for their sins. What a melancholy relapse was this from the scientific simplicity of the teaching of the older physicians of the Hippocratic school!

Running a parallel course with this relapse in scientific thought was the decline of the Roman Empire. The military despotism which raised itself on the ruins of liberty, was utterly unfavourable to that freedom of thought and speculation which is necessary to progress. The good will of an autocrat was to be gained by means less arduous than the acquirement of knowledge, and thus learning ceased to have its due reward, and fell in public esteem. Superstition revelled in the darkness; the relics of the

church, the bones of saints, and the blood of martyrs, became the most approved remedies for disease; and medicine, once again in the hands of a priesthood, was reduced to a confused mixture of jugglery and empiricism.

The time was out of joint; and from the position of a science of observation, medicine fell back to the purely empirical condition from which it had been raised by the genius of Hippocrates. Thus it remained for centuries, till, in the middle ages, the scholastic spirit in giving it a fresh impulse unfortunately diverted it still more from the fruitful method of induction, and concentrated all the awakened energy of the age on barren discussions based on verbal subtleties and refined quibbles. The actual study of disease was no longer cultivated, but all the intellect of the votaries of medicine was given to mystic dreams of *elixir vitæ*, and a vain industry in the multiplication of remedies. In the hands of the Arabs medicine had fared a little better. The study of the Greek masters and of Galen had been kept alive; some new diseases, such as smallpox and measles, were described for the first time, but in other respects no advance of note was made.

It was only in the fifteenth century, when the study of Greek was generally revived, and the invention of printing gave Europe new life, that the real return to the better path began. An Englishman, Thomas Linacre, took a noble share in this restoration of the medicine of Hippocrates by his translations from the

Greek. He established professorships at Oxford and Cambridge, for the special purpose of having the works of Hippocrates explained; and in London he founded the College of Physicians. This college received power to grant licences to practise medicine, a power which had previously been confined to the bishops. Can any fact tell more eloquently of the low position to which medicine had declined?

Alchemy and astrology, and magic of all kinds were however not at first much shaken by the revival of learning. The alchemists still cherished the hope that the *elixir vitæ* might be discovered, and by their studies kept the spirit of inquiry alive and directed it into ways sometimes useful though generally fantastic. They were really the founders of experimental science, the precursors of the modern chemist, and the first to apply to the explanation of life chemico-physical laws. The problem of medicine, however, baffled their powers of analysis; and so the energy which in another period of history would have been applied to the bedside study of morbid conditions was by these men, in their impatient desire to know all things, devoted to the multiplication of remedies by the discovery of new metals. The general intellectual condition of the time was very low, the credulity of the people was unlimited, and a catalogue of their grotesque beliefs would make a chapter at once most interesting and most sad. The superstition which had spread all over Europe under the fostering care of the dominant church, could not last for ever.

The revival of letters and the pursuit of knowledge were begining to sap the foundations of authority. Even the empty dreams of the alchemist were doing good work, in sustaining a spirit of inquiry independently of the priesthood. The fetters which bound men hand and foot as the servile tools of authority, were weakened by all these means as by a slow consuming rust, till at the magic touch of Luther they fell off.

Ten years after the great charter of religious freedom was won, Paracelsus, in imitation of Luther, publicly burned the writings of Galen and Avicenna at Basle. By this act he struck a decisive blow at that slavish reverence for the opinions of the ancients which had been the bane of progress. The writings of Galen had been regarded with almost the same pious regard as the utterances of the church; for centuries he had been the pope of medicine. Armed with his own elixir, Paracelsus cared not for the writings of his predecessors, in his own hand he carried the secret of life, and this pope he regarded as an object to be trampled on. Shameless in his boasting, impure in his life, ignorant of nearly all literature, Philip Bombastes Paracelsus was nevertheless one of the most remarkable characters of the age. As Hippocrates was the physician of Greece, so, he announced, was he the physician of Germany, powerful over all diseases, and carrying in his beard alone more knowledge than had all the universities. Dying in spite of his elixir at the age of forty-eight,

he lived long enough to revolutionize medicine and establish a school, which sought in chemical laws an explanation of all the phenomena of health and disease.

In making his efforts in this direction, he showed that he clearly comprehended the great need of his times. Medicine had become a field for the wildest speculation; no hypothesis was too absurd to find acceptance. The mystery of life was so fascinating a problem, and men were so eager to solve it, that any one who promised to point out the way was followed with a confidence as unwavering as it was blind. In this respect Paracelsus sinned almost as badly as his fellows. Having indicated the means of checking this insane belief in theories, by fixing the attention on the study of chemical phenomena, and by teaching the great doctrine that vital actions might be reduced to the level of physical laws, he well-nigh undid the usefulness of his reform by the visionary notions he advanced. For instance, among his physiological dogmas we find that of the existence of the Archæus. This Archæus was a little demon who from his throne in the upper part of the stomach superintended the digestive process, sorting out the poisonous matters from the food, and giving the aliment those virtues which are essential for assimilation. The Archæus was the friend to whom the physician should look for help in the treatment of disordered health, and all drugs should be directed against the stomach so as to influence its ruler. In the same quaint spirit

of mysticism Paracelsus attributed disease to several causes: the first of these was the "Ens astrorum," which acted by modifying the atmosphere, and poisoning it with arsenical, mercurial, and saline properties; the second was the "Ens veneni," which resided in the food, and caused putrefaction of the humours when the Archæus was caught napping, or was disinclined from any cause to do his work. The others were the "Ens naturale," the "Ens spirituale," and the "Ens deale;" the last embracing all the effects of divine predestination.[12] All of these entities acted with similar precision, and were equally potent for evil. All morbid states were held to be the result of chemical action, the effervescence of salts, the combustion of sulphur, or the coagulation of mercury. The last when sublimed caused mania, when precipitated gout; and in such fashion, the causation of all diseases was defined with an exactness that the modern physician in the uncertainty of his knowledge must often envy.

Paracelsus made some important discoveries: he added many metallic remedies to the materia medica; and he vigorously condemned the absurd habit of combining fifty or sixty remedies in every formula, insisting on the equal efficacy (or possibly inefficacy) of simpler prescriptions containing only six or seven. Charlatan as he was, "le plus fou des médecins, et le plus médecin des fous,"[13] Philip Bombastes Paracelsus was nevertheless powerful for good: he gave the study of chemistry a great im-

petus, by declaring that it was necessary to the treatment of disease, and he first awakened men thoroughly to the possibility of finding some explanation of life other than in the invention of metaphysical speculations. It is a noteworthy fact that the scholarly and sceptical Erasmus was a believer in Parcelsus, and consulted him about his health; the correspondence which passed between them has been preserved.

The fabrication and the grave acceptance of such views as those which formed the half-drunken utterances of Paracelsus in his chair at Basle, seem very unaccountable, till the abject superstition of the time is called to mind. As evidence of the credulity which prevailed even later, there is no more amusing instance than the story of the golden tooth, in which nearly all Germany believed. So late as 1595, fifty-four years after the death of Paracelsus, a physician by name Jacques Horst, published a book on the growth of a golden tooth in the jaw of a boy of ten. He never doubted the fact, but naively proceeded to explain it by a reference to the constellations under which the boy was born. On the day of the child's birth, December 22nd, 1586, the sun, said Horst, was in conjunction with Saturn in the sign of the Ram; this supernatural circumstance produced a great increase of heat, and so vastly augmented the nutritive forces, that in place of bone, gold was secreted! The author also inferred that this tooth foretold an age of gold, to begin with the expulsion of the Turks and the coming of the millennium; but as the tooth grew from the

lower jaw, he expressed his fears that the golden age would be preceded by many trials.

Horst's book attracted great attention, and a Scotchman, one Liddel, boldly repudiated the miracle and the explanations, and attacked Horst for his ignorance of astronomy in supposing that the sun could be in conjunction with Saturn in the month of December. Other authors were however much less sceptical, and accepted the fact of the miracle, though they ventured to question the explanations of its cause.[14] The possibility of such a story being gravely narrated, gravely discussed by many, and vigorously controverted by only one physician of the time, is a striking commentary on the intellectual degradation which prevailed.

Even in the writings of the father of modern science, side by side with the exposition of that inductive method to which we owe all modern progress; there are passages which show that even the mighty intellect of Bacon had been unable to utterly free itself from the vain speculations of the age. For example, the baseless hypothesis of the alchemists that all bodies are composed of sulphur, mercury, and salt, receives this high praise: "As a speculative doctrine it is the best discovery that they have made."[15] Again, in the *Historia Vitæ et Mortis* there are some remarkable suggestions as to the mode of prolonging life.[16] Medicines given for this purpose are said to act chiefly on the spirits, "the agents and workmen that produce all the effects in the body." Opium was

supposed to act by condensing these spirits, and thus conduce greatly to the prolongation of life. "Exclusion of the external air tends in two ways to prolong life. First, because of all things, next to the internal spirit, the external air (although it is as life to the human spirit, and contributes very much to health) preys upon the juices of the body and hastens its desiccation; whence the exclusion of the air conduces to longevity. The second effect of the exclusion of the air is much more deep and subtle; namely, that the body being closed up, and not perspiring, detains the spirit within, and turns it upon the harder parts of the body, which are thereby rendered soft and tender."

In other places in the same treatise, the virtues of potable gold, wine in which gold has been quenched, pearls in fine powder or paste, and other similar remedies are spoken of as cordials tending to prolong life. One sentence about bleeding runs thus: "I am in some doubt whether frequent bleeding tends to longevity; but I rather incline to believe it does, if it be turned into a habit, and other things are favourable thereto. For it discharges the old juices of the body and lets in the new." Pigeons cut in two, and applied to the soles of the feet, are spoken of as good remedies "in extreme and desperate diseases."

These extracts are sufficient to show how many quaint notions were held by one who more than any other writer recognized the defects of medicine, and with the insight of true genius detected the errors and difficulties which had impeded its scientific growth.

The germ of truth contained in the writings of Paracelsus was not destined to die: it was hidden, not lost, in the mass of fanciful speculations which covered it, and bursting its way through with the irresistible impulse of growth, it budded into higher development in the works of Sylvius and Van Helmont. The first did much to improve chemistry, and to render the adoption of chemical views of disease more acceptable, while Van Helmont shook to its base the throne of Galen, and rescued his contemporaries from their servile faith in personal dogmas. He introduced among other doctrines that of the fermentation of the humours as a frequent cause of disease, and adopted the hypothesis of the Archæus to explain away the difficulties which baffled his powers of analysis. The Archæus, however, was very often only synonymous with fermentation.

Van Helmont, in placing the chief Archæus in the stomach and a subordinate one in each organ, was in reality only figuratively describing the special functions of each organ, and indicating that it was the duty of medicine to study first of all the great central power, the cause of all vital actions, and then the individual properties of each part. This was an advance on the unmixed mysticism of his predecessors, and such as might be expected from the man who discovered and named that aëriform condition of matter which we still call gas.

Up to this time the escape of medicine from the lethal influences of scholasticism and superstition had been slow and laboured; little had been done

towards the direct improvement of the art. It was in some respects in a worse condition than Hippocrates had left it. Physicians had more remedies, but knew less how to use them. The authority of Galen certainly had been shaken, but little solid knowledge had been discovered to replace the dogmas which were abolished. The foundation of chemistry had been a great good, inasmuch as it gave men sounder notions of the properties of matter and the laws which govern it. The influence of experimental research is directly opposed to the prevalence of superstition, and every new fact in chemistry or physics obtained by its means, increased men's faith in their own powers, and gave them greater hopes of solving all the mysterious phenomena of nature. These hopes were much fostered by the discoveries made in physics by the mathematicians of the time. Headed by Borelli and Bellini, the Italian school demonstrated that the muscles act on purely mechanical principles, and maintained that all the phenomena of health and disease might be shown to obey the laws of hydrostatics and hydraulics.[17] These iatro-mathematicians acquired considerable power, and in turn almost supplanted the chemists; both united, however, in giving the death-blow to the influence of Galen. Henceforth men were free to investigate the secrets of nature without feeling compelled to defer in all their observations to the opinion of a pope.

Another influence had also been steadily and powerfully contributing to the improvement of medical

knowledge. The study of anatomy had for some time been cultivated in Italy with a devotion and accuracy unknown since the Alexandrian school. The inaccuracies of Galen had been demonstrated by Vesalius, and the circulation of the blood through the lungs (the lesser circulation) had been discovered by Servetus, who, in the year of his immortal discovery, was burned by the savage Calvin. Many other important anatomical and physiological facts had been established, when the illustrious Harvey made the most brilliant of all modern physiological discoveries by demonstrating the circulation of the blood throughout the body. The elucidation of this great truth marks an era in the history of medicine; it was the foundation of scientific physiology, and the beginning of that experimental method of investigating the phenomena of life to which we owe all the great modern additions to our stock of knowledge. The cultivation of anatomy engrossed many of the ablest intellects of the time, and there resulted a tone of thought similar to that which the same cause had produced at Alexandria some eighteen centuries previously. The belief in hypotheses was to a great extent discountenanced, and the attention concentrated on the study of facts.

As a consequence of this influence on the art of cure, we must regard the modern apostle of the Hippocratic school, Thomas Sydenham. Like his great prototype, Sydenham was most careful to exclude the prevailing theories from affecting his study of the facts of disease: he followed the inductive

method which his countryman, Bacon, had just completed, and under the guidance of his friend, John Locke, himself a surgeon, he applied it to the investigation of disease with splendid success. The laws ruling the prevalence of epidemics were elucidated, and new and old diseases described with an accuracy and graphic colouring which have ever since remained unrivalled. The treatment of disease Sydenham found lamentably uncertain from want of any fixed principle, and from the countless remedies prescribed mainly in accordance with a capricious fashion. In place of this, he left therapeutics an art ordered by the principle of aiding nature, and observing the indications afforded by morbid processes themselves. He accepted many of the explanations of the chemists, and attributed a number of diseases to morbid fermentation in the humours, a doctrine which has not yet ceased to influence medical thought. Bacon had justly reproached the physicians of his time for their neglect to make records of the cases of their patients. During the dark ages the example of Hippocrates in this respect had been forgotten: Sydenham, however, by his bedside study again brought it into favour. Living in a time when Kenelm Digby and the virtues of his sympathetic powder could gain credence, Sydenham towered high above all such vanities: he found English medicine reduced to the lowest state of empiricism—he raised it once more to the dignity of a science of observation.

The discoveries in anatomy, the explanations of

the chemists and mathematicians, and the impulse given by Sydenham to the study of actual phenomena to the exclusion of hypotheses, were, however, powerless to stem for any long time that current of mystic and pietistic thought with which the church had flooded the whole philosophy of the age. The phenomena of life were very difficult to analyse; men were continually baffled in their attempts to grapple with the problem, and instead of patiently observing the succession and relation of vital acts, they sought to find some great principle that would comprehend them all. As timid children in the dark whistle or sing to keep down their rising fears, so these philosophers, when awed by the presence of the inscrutable, have always been too ready to utter some new name, at whose magic sound the darkness of their ignorance should lose its terrors, and facts before so terribly obscure arrange themselves in lucid order.

Thus, when Stahl, the greatest chemist of his day, after giving an impulse to chemistry which bore that science steadily on towards its higher development, endeavoured to do the same good office for medicine, he began by giving a fatal blow to the physico-chemical doctrines of his contemporaries. They had contented themselves with investigating the mechanics of the body and the chemical constitution of its fluids, and had aimed at finding no higher principle to account for life. Stahl commenced his reform (1708) by showing that all the physico-chemical forces are opposed to life, and thus, drawing a clear line of demarcation between

dead and living matter, he attributed the properties of the latter to an occult principle.[18] Imbued with the doctrines of the Cartesian philosophy, which, in 1663, had received the approval of the pope, Stahl, a true pietest, replaced the Archæus of Van Helmont by the *anima:* the immaterial principle which acting on the material organs of the body produces all the vital functions. This *anima* was outside and above matter, superintending and regulating all the processes of life, and coming to the rescue of every part injured by any morbific cause. Disease was in fact only a reaction against injury, produced by *anima* in its effort to restore health.

This active principle of life, which corresponded with the autocrat, Nature, of the ancients, was held to be the chief curative power; and the part of the physician was, in most cases, to observe a masterly inactivity. Stahl, however, recognized the states of congestion and inflammation as playing a great part in all morbid states; and as he knew these to depend on the accumulation of blood in the vessels, he was naturally led to advocate bleeding in many cases. Expectancy in the treatment of disease, then as now, had strong supporters, but Stahl showed his opposition to such views by attacking them in a vigorous pamphlet entitled, *Ars sanandi cum expectatione; opposita arti curandi nudâ expectatione.* The propagation of the doctrines of Stahl was one of the most fatal improvements ever made in medicine. The tendency to explain all the phenomena of health and disease by metaphysical

conceptions, such as the *anima* and vital forces, received from his teachings irresistible power, and diverted men's attention from the study of the phenomena immediately before them. The physical inquiries which had, at one time, done so much, were forgotten, and even when the experimental school recovered its vigour, the observation of actual phenomena was long obscured by the prevailing mist of metaphysical doctrine.

Haller, the founder of modern physiology, made the next important step in advance (1739) by demonstrating that the so-called vital forces resided in the tissues of the body: this checked the prevailing tendency to regard all the powers of life as something superior to and apart from matter. Irritability the property of muscle, and sensibility the property of nerve, he declared to be the only vital forces. More than half a century previously, Glisson, an Oxford professor, in the course of his anatomical investigations, had noticed that all living organisms had a power of reacting physiologically against external conditions, and this he described as the essential characteristic of life, and he named it irritability. Haller's views were an extension and modification of those of Glisson; and as they were founded on a most elaborate series of experimental proofs, they attracted much attention to the value of experiment, and gave an impetus to anatomical and physiological research which has lasted down to our own times.

A brisk controversy grew out of Haller's dis-

coveries, and the school of modern vitalists was one of the products. These vitalists invented the hypothesis of a vital principle, on which depended all the phenomena of life in the animal and vegetable worlds. To the strictest of the school the vital principle was like the *anima* of Stahl, a simple immaterial principle, a first and special cause of all the manifestations of life: to others less orthodox in their opinions, it was only a pivot on which their system of physiology worked, a convenient formula for the dogmatic exposition of their doctrines, and an indication of their impatience of leaving things without explanation: to a third class this vital principle was simply the resultant of certain complex physico-chemical laws acting in organized beings. These last were called by the ugly name of materialists, which their opponents found by far the most powerful kind of argument they could adduce against men, who sought in such forces as electricity and heat, the solution of the mystery of life.

In the discussions which followed, the views of Haller were almost entirely forgotten, and undiluted vitalism reigned supreme. In England, however, they found a great supporter in Brown,[19] who seeking to assail the system of his contemporary Cullen, which was built up on solidism in pathology, and vitalism in physiology, found in the teachings of Haller the weapons he required. The phenomena of life, Brown asserted, are to be found only where two conditions coexist; an organism and a suitable medium. Vital force is an hypothesis, and explains nothing. Life,

according to Brown, depends wholly on external influences, such as heat, air, water, &c., which act on the organism as excitants (stimuli), and excitability (the irritability of Haller) is the property by which living matter reacts against them. Health consists in the perfect balance between excitability and the excitement produced by stimulation. Disease results from excess or defect of this excitement, and in nearly all cases represents a condition of debility, either "direct" or "indirect."

The Brunonian system found many adherents: Lamarck and Tiedemann adopted and extended it, and in Italy it was received with much favour. Broussais, at a later date (1816), selecting some of its principles, constructed that system of physiological medicine which has made him famous, and which was the first formal exposition of the mutual interdependence of pathology and physiology.[20] With Brown he held that irritation, or stimulation, was, in its proper amount, necessary to life, and when excessively increased was the source of all disease; but he differed from his English predecessor in holding that local irritation and not constitutional was the essential morbific cause. In this elevation of local at the expense of general action, Broussais is in striking agreement with the greatest of modern pathologists, Virchow, who has restored, after a period of neglect, the views of Haller and Brown. Irritability is again the criterion of life and death. "Every vital action," says Virchow, "presupposes an excitation, if you like, an irritation."[21] This

the most modern doctrine, which has almost beaten out of the field the previously dominant notion that the nervous system is the real centre of life, replaces the unity of the neurists, by the activity of individual parts, and gives to every tissue the irritability which constitutes life and may engender disease. The organism thus considered becomes a kind of "organic social institution," which depends for its healthy working on the good behaviour of its countless component cells.

This cellular pathology, which has the great merit of being based on the results of the most minute anatomy of the tissues, and of embracing in its explanations very many facts which before obeyed no law, may be justly described as the most fruitful generalization of modern times. On analysis, however, there is still to be found a metaphysical conception lying at its base, endangering by its presence the whole superstructure. The irritability of the cell is but another name for vital force; and when the cells are given, by virtue of this irritability, the power of attracting to themselves the nutritive fluids from which the materials of new cells are to be obtained, we really have another phase of vitalism, skilfully disguised it is true, and explanatory of a vastly greater number of facts than any preceding theory, and therefore nearer to the truth, but nevertheless resting at last on as artificial an abstraction as any.

The comparatively late period at which physiology began to escape from its metaphysical stage, accounts

for the continued existence of abstract notions in pathology, a science which is really only an extension of the laws of life to the more complex phenomena of disease. Both subjects have ever presented such difficulties to the observer, that, repeatedly foiled in his attempts to fathom the origin and purposes of life, he has accepted metaphysical explanations as the only ones forthcoming. Thus in the pathology of to-day it is scarcely realized, that to make any obscure fact depend on vital force, or irritability, is simply to refer it to something still more obscure. Science knows no such method, but ever seeks to explain the more complex by the more simple; and regarding life as the most complex of all conditions, holds that it can never serve as an explanation of any fact.

The recognition of this canon by the physiologist has of late so guided his march that every recent victory has rescued some slip of territory from the arbitrary domination of vital force and has reduced it to the orderly government of mechanical and chemical laws. Pathology, although wishing to advance by the same route is, however, as yet unable to walk alone without the metaphysical crutches which the elder sister has cast aside. And therapeutics, dependent on both, has, like a mirror, reflected the many changing expressions of the other branches of medicine, at one time complacently yielding to the unchecked luxuriance of vitalistic hypotheses, and at others grimly accepting the darkness of empiricism, or

despairingly embracing a feeble expectancy. Dealing with the most difficult problems of all, it still lags far behind, awaiting of necessity the succour which a higher knowledge of the laws of health and disease alone can bring.

"Certainly the greatest gap in the science of medicine is to be found in its final and supreme stage—the stage of therapeutics. . . . To me it has been a lifelong wonder how vaguely, how ignorantly, how rashly, drugs are often prescribed. We try this; and not succeeding, we try that; and baffled again, we try something else, and it is fortunate if we do no harm in these our tryings. Now, this random and haphazard practice, wherever and by whomsoever adopted, is both dangerous in itself and discreditable to medicine as a science. Our profession is continually fluctuating on a sea of doubts about questions of the gravest importance."[22]

If words have any meaning, surely these, uttered only two years ago by a great living authority, in an address on the present state of practical medicine, offer the strongest justification of Bernard's statement, that scientific medicine does not exist.[23] At all events, the supreme stage of therapeutics sadly lacks that certainty which science gives. This admission does not, however, condemn medicine, it only confesses an unavoidable state of imperfection. When the great French physiologist denied the existence of scientific medicine, he spoke a criticism, not a censure. No one has seen more clearly and indicated more forcibly than he the great defects in the scientific aspect of the study of health and disease; and no one has so well shown that the cultivation of experimental physiology is the necessary preliminary of the evolution of medicine.

The development of medicine as a science is slow, because the knowledge on which it must be raised is slow to come. The base of a pyramid must be constructed first, and stone by stone the building raised till the crowning glory of its apex is completed. But while some are busy in giving form to the first parts of the edifice, other workmen are well employed in making ready the stones which shall find a place nearer to the apex, or compose the apex itself. So it is with medicine: physiology must form the base, pathology the middle, and therapeutics the apex. But while the foundations are being well laid, materials may be prepared for the construction of the later parts, if the hands of the workers have only enough of skill and method to fit them for the work.

In the past, medicine in the effort to attain a higher form, has had to depend on methods incompetent to grapple with the complex phenomena of life in all its phases. The method of observation, which in the hands of its great masters—Hippocrates, Aristotle, and Sydenham—produced such noble firstfruits, has nevertheless failed in its later yield. A science of observation with a knowledge of many of the laws of health and disease, and a prevision of the courses of maladies, satisfied not; and from the ill-ordered efforts to create a more powerful medicine have resulted a host of useless speculations. Scepticism and credulity have in turn prevailed, and the scientific aspect of medicine has from time to time been lost in the rank growth of hypothesis, or the trackless jungle of empiricism.

The time for all these evils to end has now come, and men are beginning to learn that observation which was alone sufficient to conduct to a correct knowledge of the simpler sciences, such as astronomy and geology, is insufficient to lead to the solution of the more difficult. Physics and chemistry, dealing with more complex problems, never escaped from empiricism till a second method of investigation—experiment—was introduced. This, by enabling the inquirer to produce the phenomena which he desires to study, to isolate and combine them, and to change their conditions at will, has given to these sciences a perfection which was never to be attained by the application of observation alone. In the phenomena of life there is still greater complexity to unravel, and *a fortiori*, observation is still less adequate, and must be aided by the method of the chemist, experiment, and supplemented by a third specially adapted to the work.

Observation, the sole method of the ancients, was in medicine, as in other subjects, the beginning of all intelligent action; and assisted as it now is by the many appliances of modern invention, which marvellously augment the power and precision of our senses, it is still a most fertile method, accuracy and skill in which are fundamental requisites.

It is, however, to the application of experiment to physiological investigation that we owe the great results of Harvey, Haller, and others. The greatest victories have been won, not by a passive obser-

vation of the phenomena of life, but by the active interference of the experimenter, who has laid bare the hidden organs of the body and studied their functions while in action. In the same way, by extending the inquiry into the laws of life varied by the presence of disease, experiment offers the best means of analysing morbid processes, of imitating and producing them at will, in order to understand the mutual relations of their symptoms. Some of the most important and startling discoveries in pathology have been arrived at by this method; to it we owe that knowledge of tubercular diseases, epilepsy, and many others, which enables us to produce their phenomena in animals in order to study the mechanism of the disorder, and discover the means of arresting or preventing it. The chief obstacle to progress in these inquiries now, is the undeveloped state of organic chemistry. When the chemist can detect those delicate chemical variations in the fluids of the body which serve as the origin of many diseases of nutrition, experimental pathology, rejoicing in this new light, will clearly detect the principal element of many diseases, which, like the bower of a labyrinth, has been, but for a single obstacle, so often gained.

Comparison, the third method of investigation, is, as Comte has pointed out, especially adapted to biological study. By the use of it particular organs and functions may be examined throughout the whole organic series, from their most rudimentary state to their most elaborate development. The experiments

which nature is everywhere making on so grand a scale may be interpreted by means of comparison, with almost the same precision as experiments in a laboratory, and in proportion to their universality they will yield a deeper insight into the necessary conditions and origin of life. To quote the words of Comte, "There is clearly no structure or function whose analysis may not be perfected by an examination of what all organisms offer in common with regard to that structure and function, and by the simplification effected by the stripping away of all accessory characteristics, till the quality sought is found alone, from whence the process of reconstruction can begin. It may even be fairly said, that no anatomical arrangement, and no physiological phenomenon, can be really understood till the abstract notion of its principal element is thus reached, by successively attaching to it all secondary ideas, in the rational order prescribed by their greater or less persistence in the organic series."[24]

The signal truths which this method has produced in the hands of Cuvier and Owen, in one direction, and in the hands of Bichat, Lamarck, and Darwin, in others, read more like the creations of a poet's fancy than the sober results of scientific research. It was the application of comparison to pathology, which the far-seeing genius of Hunter anticipated, when he conceived the grand thought of including in pathology, not the diseases of man alone, but all the abnormities to be found in the organic and inorganic worlds. This grand conception of a science

of the abnormal, this prevision of the regularity of irregularities, and of the reduction to fixed laws of phenomena apparently infinitely variable, stamp John Hunter as the most philosophical pathologist of any age; and when realized in that comparative pathology which is yet to be created, will form the safest and widest basis of medicine as a science.

By these three methods, Observation, Experiment, and Comparison, all the phenomena of health and disease must be investigated before any theories can be formed capable of giving scientific certainty to the practice of the physician. The external forms of maladies, and the laws which regulate their courses, are comparatively well known; what is now wanted is a knowledge of the causes which produce disordered health. When once the cause or initial phenomenon of the morbid series is identified, the mechanism of disease will be mastered, and its rational treatment will follow. To gain this knowledge the energies of medicine must be devoted to pathological experiment and comparison, and no longer dissipated in a vain search after specifics.

Now and again, in the progress of medicine, a remedy for a disease has been discovered by the haphazard administration of a drug; but judging from the past, countless ages would pass away before each disease would find its remedy by such a method; and the discovery when made would still leave knowledge in a purely empirical state, holding no clue to the mode of action of the remedy or to the actual cause of the

malady. The active principle of Jesuit's bark has cured ague ever since 1639, but the manner in which the cure is effected is still unknown, because the mechanism of the disease still baffles our attempts at analysis. So it must remain, in all cases, till the application of experiment, by artificially producing the morbid phenomena under more simple conditions, and analysing their succession and relation, isolates the initial phenomenon of the series, and gives medicine a definite object to attack. In the laboratory of the physiologist some diseases can be developed with almost the same certainty as a chemical decomposition is effected; and as the experimenter gains power the number of morbid states thus producible, will increase, and our intimate acquaintance with their causes will lead to a proportionate improvement in treatment. In many parasitic diseases this knowledge has already been gained, and the cure is consequently speedy and certain. The destruction of the parasite (the initial phenomenon) controls all the secondary manifestations, which in the past were regarded as the essential characters of the disease.

In the same way all morbific principles must be isolated before a rigorously scientific mode of cure can be devised. At present so little is known of the nature of disease-producing agents, that next to nothing can be attempted in the way of directly neutralizing their effects or preventing their action. The practical duties of medicine, however, brook no delay; diseases must be treated and epidemics checked; and until the

higher reign of scientific law comes, the slowly garnered wisdom of experience and the approximative truths of empirical laws must suffice. The medicine of to-day, unable to act directly on the initial phenomenon of a disease, devotes all its powers to limiting the variations from the healthy standard which the morbid cause excites. Rude attempts to strangle disease no longer find acceptance, and modern treatment, if not less empirical in its character, is infinitely less rash in its measures and less dangerous in its fashions.

In the other branch of medicine, the preservation of health, there is the same necessary dependence on a more or less conjectural basis, for the higher certainty can only come with a more extended knowledge of the physiology of the healthy and morbid states. But meanwhile, improvements in drainage, and purity of water supply, are all raising great obstacles to the supremacy of disease, and are supplying sanitary data from which useful generalizations will come.

That our theories in medicine with regard to the prevention of disease and its treatment are ever changing is no reproach, they must change as knowledge grows. "A theory," said a great French chemist, "established on twenty facts should serve to explain thirty, and lead to the discovery of ten more; but it will nearly always be modified or overthrown before ten new facts are added to these last."[25] Till the laws which govern vital phenomena under all conditions are better known, the treatment and prevention of

disease must rest on a rational empiricism. Before a drug can be scientifically applied to the relief of sickness, the modifications which it produces on healthy functions must be known; and the difficulty of obtaining trustworthy data in so complex an inquiry is evident. The discovery of the *modus operandi* of a remedy in disease is, however, a task incomparably more difficult, since it is an attempt to learn the influence exercised by the remedy, not on healthy functions, of which we know little, but on a variation of healthy functions, of which we know less. It is an endeavour to find the value of an unknown quantity by means of two others whose values are very imperfectly known. Surely when the progress of physiology is so slow, the backward state of therapeutics, though it may warrant regret, does not justify reproach.

The courage of patience is the courage which, above all, is now wanted in medicine: to wait and work till, in the fulness of time, the simpler branches of the triad of medicine are made ready for the evolution of its crowning science. In the past, this courage has too often given way under a noble impatience of imperfection, and the work of ages has been destroyed by premature attempts at completion.

Now chastened by repeated failures we have abandoned all inquiries into final causes as a search beyond the powers of the human mind, and concentrating our attention on the laws which regulate the succession and relation of phenomena we are content to move more slowly and more surely towards that perfect wisdom,

whence comes perfect action. In this new stage of growth, medicine less and less dependent on the blind gropings of empiricism and no more subject to metaphysical systems, will learn to apply to the great problems of health and disease the invariable laws of science; then the physician, no longer condemned to contemplate in miserable inaction the progress of a disease whose course he cannot control, will defeat by exact knowledge the subtlest approaches of his foe: "homo minister et interpres naturæ, quantum scit, tantum potest."

BALTHAZAR W. FOSTER.

NOTES.

(1) Sprengel, Histoire de la Médecine, par Jourdan; vol. i, p. 234.
(2) Aristotle refuted this notion. *Vide* Sprengel; vol. i, note, p. 260.
(3) Boulet, Dubitationes de Hippocratis vitâ, patriâ, genealogiâ, forsan mythologicis, et de quibusdam ejus libris multo antiquioribus quam vulgo creditur. Paris, An. XII.
(4) The Genuine Works of Hippocrates, translated by Adams, Sydenham Society; vol. i, p. 255-56.
(5) Bostock, History of Medicine in Cyclopædia of Practical Medicine; chap. iii, p. 16.
(6) Translation of Nélaton's Letter in *Figaro*, given in Lancet; vol. ii, 1869, p. 491.
(7) Aitken's Science and Practice of Medicine; 5th edit., vol. i, p. 926.
(8) Sprengel; vol. ii, p. 151.
(9) Origen contra Celsum; lib. 8, chap. xxxi. Vol. i, p. 765, Benedictine edition.
(10) St. Augustine, Opera Omnia; vol. vi, p. 509, Benedictine edition. De Divinatione Dæmonum; chap. v.
(11) Anastas; quæst xx, p. 238 (ed. Gretser). *Vide* Sprengel; vol. ii, p. 157.
(12) Sprengel; vol. iii, sec. 9, chap. ii.
(13) Cabanis, Les Révolutions de la Médecine; 1804; p. 135.
(14) Liddell, de Dente Aureo. Hamburgh, 1628. *Vide* Sprengel; vol. iii, p. 248.
(15) Spedding's Bacon; vol. v, p. 205.
(16) Ib.; vol. v, p. 217—335.
(17) Bostock, op. cit.; chap. ix, p. 50.
(18) Cabanis, op. cit.; chap. i, sec. 77. Sprengel; vol. v, p. 195. Claude Bernard, Leçons sur les propriétés des Tissus Vivants; p. 67.
(19) The Elements of Medicine, by John Brown, M.D. London, 1788.
(20) Examen de la Doctrine Médicale, par F. J. V. Broussais. Paris, 1816.
(21) Virchow's Cellular Pathology, translated by Dr. Chance; pp. 287 and 387.
(22) Sir Thomas Watson, Address on the present state of Therapeutics, delivered at first meeting of Clinical Society of London, 1868. *Vide* Lancet; vol. i, 1868, p. 76.
(23) Pall Mall Gazette, vol. i, 1869, p. 1029, and vol. ii, 1869, p. 1493. Revue des Cours Scientifiques, 19 Mars, 1870.
(24) The Positive Philosophy of Auguste Comte, translated by Harriet Martineau; vol. i, p. 377.
(25) Dumas, Philosophie Chimique; p. 60.

Printed by Josiah Allen, jun., Birmingham.

London, New Burlington Street,
October, 1870.

MESSRS. CHURCHILL & SONS'

Publications,

IN

MEDICINE

AND THE VARIOUS BRANCHES OF

NATURAL SCIENCE.

"It would be unjust to conclude this notice without saying a few words in favour of Mr. Churchill, from whom the profession is receiving, it may be truly said, the most beautiful series of Illustrated Medical Works which has ever been published."—*Lancet.*

"All the publications of Mr. Churchill are prepared with so much taste and neatness, that it is superfluous to speak of them in terms of commendation."—*Edinburgh Medical and Surgical Journal.*

"No one is more distinguished for the elegance and *recherché* style of his publications than Mr. Churchill."—*Provincial Medical Journal.*

"The name of Churchill has long been a guarantee for the excellence of illustrated works, and it would be superfluous to repeat the admiration that we have several times expressed in this respect, of the spirit with which this firm engages in these costly but valuable series."—*Medical Press and Circular.*

"The typography, illustrations, and getting up are, in all Mr. Churchill's publications, most beautiful."—*Monthly Journal of Medical Science.*

"Mr. Churchill's illustrated works are among the best that emanate from the Medical Press."—*Medical Times.*

"We have before called the attention of both students and practitioners to the great advantage which Mr. Churchill has conferred on the profession, in the issue, at such a moderate cost, of works so highly creditable in point of artistic execution and scientific merit."—*Dublin Quarterly Journal.*

MESSRS. CHURCHILL & SONS are the Publishers of the following Periodicals, offering to Authors a wide extent of Literary Announcement, and a Medium of Advertisement, addressed to all Classes of the Profession.

THE BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW, AND QUARTERLY JOURNAL OF PRACTICAL MEDICINE AND SURGERY.
Price Six Shillings. No. XCII.

THE QUARTERLY JOURNAL OF MICROSCOPICAL SCIENCE,
Edited by DR. LANKESTER, F.R.S., and E. RAY LANKESTER, B.A., F.R.M.S. Price 4*s*.
No. XL. *New Series.*

THE JOURNAL OF MENTAL SCIENCE.
By authority of the Medico-Psychological Association.
Edited by HENRY MAUDSLEY, M.D.
Published Quarterly, price 3*s*. 6*d*. *New Series.*
No. XXXIX.

JOURNAL OF CUTANEOUS MEDICINE.
Edited by Dr. H. S. PURDON, Belfast.
Published Quarterly, price 2*s*. No. XIV.

ARCHIVES OF MEDICINE:
A Record of Practical Observations and Anatomical and Chemical Researches, connected with the Investigation and Treatment of Disease. Edited by Dr. LIONEL S. BEALE, F.R.S. Published Quarterly; Nos. I. to VIII., 3*s*. 6*d*.; IX. to XII., 2*s*. 6*d*., XIII. to XVI., 3*s*.

THE ROYAL LONDON OPHTHALMIC HOSPITAL REPORTS, AND JOURNAL OF OPHTHALMIC MEDICINE AND SURGERY.
Vol. VI., Part 4, 2*s*. 6*d*.

THE MEDICAL TIMES & GAZETTE.
Published Weekly, price Sixpence.
Annual Subscription, £1. 6*s*., and regularly forwarded to all parts of the Kingdom, post free, for £1. 8*s*.

THE PHARMACEUTICAL JOURNAL,
AND TRANSACTIONS OF THE PHARMACEUTICAL SOCIETY.
Published Weekly, price Fourpence.
*** May also be had in Monthly Parts.

THE BRITISH JOURNAL OF DENTAL SCIENCE.
Published Monthly, price One Shilling.
No. CLXXII.

THE MEDICAL DIRECTORY.
Published Annually. 8vo. cloth, 10*s*. 6*d*.

THE HALF-YEARLY ABSTRACT OF THE MEDICAL SCIENCES.

BEING A DIGEST OF BRITISH AND CONTINENTAL MEDICINE,

AND OF THE PROGRESS OF MEDICINE AND THE COLLATERAL SCIENCES.

Edited by W. DOMETT STONE, M.D., F.R.C.S., L.S.A.

Post 8vo. cloth, 6*s*. 6*d*. Vols. I. to LI.

"American physicians may be congratulated that they are once more favoured with the reprint of 'Ranking's Abstract.' If any doctor is so busy that he can read but a single volume a year, then, assuredly, he should make this his book; for here are collected and condensed the most valuable contributions to periodical medical literature—French, German, British, and American—for the year; and, on the other hand, no physician—it matters not how wide the range of his reading—can fail to find, in this volume, truths that will enlarge his medical knowledge, and precepts that will help him in some of his daily professional needs."—*Cincinnati Journal of Medicine*, April, 1867.

"We have only space to say that this volume is rich in valuable articles, among which there are many on materia medica and therapeutics. Gathered from all sources in the new books and medical journals of Europe and America, this work may be viewed as the cream of that class of medical essays, and is a useful occupant of the physician's office-table, to keep him reminded of the progress of medicine."—*American Journal of Pharmacy*, May, 1867.

A CLASSIFIED INDEX

TO

MESSRS. CHURCHILL & SONS' CATALOGUE.

ANATOMY.

	PAGE
Anatomical Remembrancer ..	7
Flower on Nerves	16
Heale's Anatomy of the Lungs	19
Heath's Practical Anatomy ..	20
Holden's Human Osteology ..	20
Do. on Dissections	20
Jones' and Sieveking's Pathological Anatomy	22
MacDougal—Hirschfeld on the Nervous System	v
Maclise's Surgical Anatomy ..	25
Sibson's Medical Anatomy ..	33
Waters' Anatomy of Lung ..	37
Wheeler's Anatomy for Artists	38
Wilson's Anatomy	39

CHEMISTRY.

Bernays' Notes for Students ..	9
Bloxam's Chemistry	10
Do. Laboratory Teaching	10
Bowman's Practical Chemistry	10
Do. Medical do. ..	10
Fownes' Manual of Chemistry ..	16
Do. Actonian Prize	16
Do. Qualitative Analysis ..	16
Fresenius' Chemical Analysis ..	17
Galloway's First Step	17
Do. Second Step	17
Do. Analysis	17
Do. Tables	17
Griffiths' Four Seasons	18
Horsley's Chem. Philosophy ..	21
Kay-Shuttleworth's Modern Chemistry	23
Mulder on the Chemistry of Wine	27
Plattner & Muspratt on Blowpipe	28
Speer's Pathol. Chemistry ..	34
Sutton's Volumetric Analysis .	34

CLIMATE.

Bennet's Winter in the South of Europe	9
Chambers on Italy	12
Dalrymple on Egypt	14
Francis on Change of Climate ..	16
Grabham on Madeira	18
Hall on Torquay	19
Haviland on Climate	19
Horton on West Coast of Africa	21
Lee on Climate	24
Do. Watering Places of England	24
Martin on Tropical Climates ..	26
Moore's Diseases of India ..	26
Patterson's Egypt and the Nile	28
Scoresby-Jackson's Climatology	32
Shapter on South Devon	32
Siordet on Mentone	33
Taylor on Pau and Pyrenees ..	35

DEFORMITIES, &c.

	PAGE
Adams on Spinal Curvature ..	6
Do. on Clubfoot	6
Bigg's Orthopraxy	9
Bishop on Deformities	10
Do. Articulate Sounds ..	10
Brodhurst on Spine	11
Do. on Clubfoot	11
Coles on Deformities of the Mouth	13
Hugman on Hip Joint	21
Salt on Lower Extremities ..	31

GENERATIVE ORGANS, Diseases of, and SYPHILIS.

Acton on Reproductive Organs	6
Coote on Syphilis	14
Coulson on Syphilis	14
Gant on Bladder	17
Hutchinson on Inherited Syphilis	22
Lee on Syphilis	23
Oppert on Syphilis	27
Parker on Syphilis	27
Wilson on Syphilis	39

HYGIENE.

Armstrong on Naval Hygiene	7
Beale's Laws of Health	8
Do. Health and Longevity	8
Carter on Training	12
Chavasse's Advice to a Mother ..	13
Do. Counsel to do	13
Do. Advice to a Wife ..	13
Dobell's Germs and Vestiges of Disease	15
Fife & Urquhart on Turkish Bath	16
Gordon on Army Hygiene ..	18
Hartwig on Sea Bathing	19
Hartwig on Physical Education	19
Hufeland's Art of prolonging Life	21
Hunter on Body and Mind ..	21
Lee's Baths of France, Germany, and Switzerland	24
Lowndes on the Maintenance of Health	25
Moore's Health in Tropics ..	26
Parkes on Hygiene	28
Parkin on Disease	28
Pearse's Notes on Health	28
Pickford on Hygiene	28
Robertson on Diet	31
Routh on Infant Feeding	31
Wells' Seamen's Medicine Chest	38
Wilson on Healthy Skin	39
Do. on Mineral Waters ..	39
Do. on Turkish Bath	39

MATERIA MEDICA and PHARMACY.

Beasley's Formulary	9
Do. Receipt Book	9
Do. Book of Prescriptions	9

MATERIA MEDICA and PHARMACY—*continued.*

	PAGE
Birch on Oxygen	9
Brunton on Digitalis	11
Flux on Sale of Poisons	16
Lescher's Elements of Pharmacy	24
Nevins' Analysis of Pharmacop.	27
Pereira's Selecta è Præscriptis	28
Prescriber's Pharmacopœia ..	29
Rogers on Therapeutics	31
Royle's Materia Medica	31
Smith's Pharmaceutical Guide	33
Squire's Hospital Pharmacopœias	34
Do. Companion to the Pharmacopœia	34
Steggall's First Lines for Chemists and Druggists	34
Stowe's Toxicological Chart ..	34
Taylor on Poisons	35
Wahltuch's Materia Medica ..	37
Waring's Therapeutics	37
Wittstein's Pharmacy	39

MEDICINE.

Adams on Rheumatic Gout ..	6
Addison on Cell Therapeutics ..	6
Do. on Healthy and Diseased Structure	6
Aldis's Hospital Practice	6
Austin on Paralysis	7
Barclay on Medical Diagnosis ..	7
Do. on Gout	7
Barlow's Practice of Medicine	8
Basham on Dropsy	8
Braidwood on Pyæmia	10
Brinton on Stomach	11
Do. on Intestinal Obstruction	11
Budd on the Liver	11
Budd on Stomach	11
Camplin on Diabetes	12
Catlow on Æsthetic Medicine ..	12
Chambers on the Indigestions	12
Do. Lectures	12
Dale's Practical Medicine	14
Davey's Ganglionic Nervous Syst.	14
Day's Clinical Histories	15
Elam on Medicine, Disease, and Death	15
Eyre on Stomach	15
Fenwick on the Stomach	16
Do. on Diagnosis	16
Fuller on Rheumatism	16
Gairdner on Gout	17
Gibb on Throat	17
Do. on Laryngoscope	17
Gully's Simple Treatment ..	18
Habershon on the Abdomen ..	18
Do. on Mercury	18
Hall (Marshall) on Apnœa ..	18
Do. Observations ..	18
Headland—Action of Medicines	19
Do. Medical Handbook	19
Hooper's Physician's Vade-Mecum	18

MEDICINE—*continued.*

PAGE
Inman's New Theory 22
Do. Myalgia 22
James on Laryngoscope 22
Jencken on Cholera 22
Jones (Bence) on Pathology and Therapeutics 22
Mackenzie on Hoarseness .. 25
Maclachlan on Advanced Life .. 25
MacLeod on Acholic Diseases .. 25
Macleod's Ben Rhydding 25
Macnamara on Cholera 25
Marcet on Chronic Alcoholism . 25
Macpherson on Cholera 26
Markham on Bleeding 26
Martyn on Hooping Cough .. 26
Morris on Germinal Matter .. 27
Meryon on Paralysis 26
Mushet on Apoplexy 27
Parkin on Cholera 28
Pavy on Diabetes 28
Do. on Digestion 28
Roberts on Palsy 31
Robertson on Gout 31
Savory's Domestic Medicine .. 32
Semple on Cough 32
Seymour on Dropsy 32
Shaw's Medical Remembrancer 32
Smee on Debility 33
Steggall's Medical Manual .. 34
Thomas' Practice of Physic .. 35
Thudichum on Gall Stones .. 35
Todd's Clinical Lectures 36
Tweedie on Continued Fevers 36
Walker on Diphtheria 37
What to Observe at the Bedside 25
Williams' Principles 38
Wright on Headaches 39

MICROSCOPE.

Beale on Microscope in Medicine 8
Carpenter on Microscope 12
Schacht on do. 32

MISCELLANEOUS.

Acton on Prostitution 6
Barclay's Medical Errors 7
Bascome on Epidemics 8
Beale on Disease Germs 8
Buckle's Hospital Statistics .. 11
Chapman's Med. Institutions .. 12
Cooley's Cyclopædia 13
Davies on the Unity of Medicine 14
Edwards' Photographs 15
Gordon on China 18
Graves' Physiology and Medicine 18
Guy's Hospital Reports 18
Harrison on Lead in Water .. 19
Hingeston's Topics of the Day .. 20
Howe on Epidemics 21
Lee on Homœop. and Hydrop 24
London Hospital Reports 24
Mayne's Medical Vocabulary .. 26
Oppert on Hospitals 27
Part's Case Book 28
Redwood's Supplement to Pharmacopœia 30
Ryan on Infanticide 31
St. George's Hospital Reports .. 31
Simms' Winter in Paris 33
Snow on Chloroform 33
Veitch on Sick Nursing 37

MISCELLANEOUS—*continued.*

Waring's Tropical Resident at Home 37
Whitehead on Transmission .. 38
Wise's Med. amongst Asiatics .. 38

NERVOUS DISORDERS AND INDIGESTION.

PAGE
Althaus on Epilepsy, Hysteria, &c. 7
Birch on Constipation 9
Downing on Neuralgia 15
Hunt on Heartburn 21
Jones (Handfield) on Functional Nervous Disorders 22
Leared on Imperfect Digestion 23
Morris on Irritability 26
Reade on Syphilitic Affections of the Nervous System 30
Reynolds on the Brain 30
Do. on Epilepsy 30
Rowe on Nervous Diseases .. 31
Sieveking on Epilepsy 33
Turnbull on Stomach 36

OBSTETRICS.

Barnes on Obstetric Operations 8
Hodges on Puerperal Convulsions 20
Lee's Clinical Midwifery 24
Do. Consultations 24
Leishman's Mechanism of Parturition 24
Pretty's Aids during Labour .. 29
Priestley on Gravid Uterus .. 30
Ramsbotham's Obstetrics 30
Sinclair & Johnston's Midwifery 33
Smellie's Obstetric Plates 33
Smith's Manual of Obstetrics .. 33
Swayne's Aphorisms 34
Waller's Midwifery 37

OPHTHALMOLOGY.

Cooper on Injuries of Eye .. 13
Do. on Near Sight 13
Dalrymple on Eye 14
Dixon on the Eye 15
Hogg on Ophthalmoscope .. 20
Hulke on the Ophthalmoscope 21
Jago on Entoptics 22
Jones' Ophthalmic Medicine .. 23
Do. Defects of Sight 23
Do. Eye and Ear 23
Macnamara on the Eye 25
Power's Illustrations of Diseases of the Eye 29
Solomon on Glaucoma 34
Walton on the Eye 37
Wells Treatise on the Eye .. 38
Do. on Spectacles 38
Welfe on Cataract 39

PHYSIOLOGY.

Beale on Protoplasm 8
Carpenter's Human 12
Do. Manual 12
Heale on Vital Causes 19
Richardson on Coagulation .. 30
Shea's Animal Physiology 32

PSYCHOLOGY.

PAGE
Arlidge on the State of Lunacy 7
Bateman on Aphasia 8
Bucknill and Tuke's Psychological Medicine 11
Davey on Nature of Insanity .. 14
Murray on Emotional Diseases 27
Noble on Mind 27
Sankey on Mental Diseases .. 31
Van der Kolk on Mental Disease 37
Winslow's Obscure Dis. of Brain 39

PULMONARY and CHEST DISEASES, &c.

Allison on Pulmonary Consumption 6
Bright on the Chest 10
Cotton on Stethoscope 14
Davies on Lungs and Heart .. 14
Dobell on the Chest 15
Do. on Tuberculosis 15
Do. on Winter Cough 15
Do. First Stage of Consumption 15
Fuller on the Lungs 16
Do. on Heart 16
Garrett on the Windpipe and Consumption 17
Jones (Jas.) on Consumption .. 23
Laennec on Auscultation 23
Markham on Heart 26
Myers on Diseases of Heart among Soldiers 27
Peacock on the Heart 28
Pirrie on Hay Asthma 29
Salter on Asthma 31
Skoda on Auscultation 26
Thompson on Consumption .. 35
Thorowgood on Asthma 35
Timms on Consumption 36
Turnbull on Consumption .. 36
Waters on the Chest 37
Do. on Emphysema 37

RENAL and URINARY DISEASES.

Acton on Urinary Organs .. 6
Basham on Renal Diseases .. 8
Beale on Kidney Diseases .. 8
Bird's Urinary Deposits 10
Hassall on Urine 19
Parkes on Urine 28
Thudichum on Urine 35
Todd on Urinary Organs 36

SCIENCE.

Baxter on Organic Polarity .. 8
Bentley's Manual of Botany .. 9
Brooke's Natural Philosophy .. 11
Hardwich's Photography 19
Hinds' Harmonies 20
Howard on the Clouds 21
Huxley on Classification of Animals 22
Jones (Bence) on Matter and Force 22
Jones (Wharton) on Vision .. 23
Do. on Body, Sense, and Mind 23
Mayne's Lexicon of Terms .. 26
Noad on the Inductorium .. 27

SCIENCE—*continued.*

PAGE
Pratt's Genealogy of Creation .. 29
Do. Eccentric & Centric Force 29
Do. on Orbital Motion 29
Do. Astronomical Investigations 29
Do. Oracles of God 29
Price's Photography 30
Rainey on Shells 30
Reymond's Animal Electricity 30
Taylor's Medical Jurisprudence 35
Vestiges of Creation 36

SURGERY.

Adams on Reparation of Tendons 6
Do. Subcutaneous Surgery 6
Anderson on the Skin 7
Ashton on Rectum 7
Brodhurst on Anchylosis 11
Bryant on Diseases of Joints .. 11
Do. Clinical Surgery .. 11
Callender on Rupture 12
Chapman on Ulcers 12
Do. Varicose Veins 12
Clark on Visceral Lesions .. 13
Do. Outlines of Surgery 13
Collis on Cancer 13
Cooper's Surgical Dictionary 14
Coulson on Stone in Bladder .. 14
Curling on Rectum 14
Do. on Testis 14
Druitt's Surgeon's Vade-Mecum 15
Fayrer's Clinical Surgery .. 15
Fergusson's Surgery 16
Do. Progress of Surgery 16
Gamgee's Amputation at Hip-joint 17
Gant's Principles of Surgery .. 17

SURGERY—*continued.*

PAGE
Gay on Varicose Disease 17
Heath's Minor Surgery and Bandaging 20
Do. on the Jaws 20
Higginbottom on Nitrate of Silver 20
Hodgson on Prostate 20
Holt on Stricture 21
Holthouse on Tumours of the Groin 21
Lawrence's Surgery 23
Do. Ruptures 23
Lee's Practical Pathology .. 23
Liston's Surgery 24
Logan on Skin Diseases 24
Macleod's Surgical Diagnosis .. 25
Macleod's Surgery of the Crimea 25
Maclise on Fractures 25
Marsden on Cancer 26
Maunder's Operative Surgery .. 26
Nayler on Skin Diseases 27
Pirrie's Surgery 29
Price on Excision of Knee-joint 29
Sansom on Chloroform 32
Savage on the Female Pelvic Organs 32
Smith (Hy.) on Stricture 33
Do. on Hæmorrhoids 33
Do. on the Surgery of the Rectum 33
Do. (Dr. J.) Dental Anatomy and Surgery 33
Spender on Ulcers 34
Steggall's Surgical Manual .. 34
Swain on the Knee-Joint 34
Thompson on Stricture 35
Do. on Prostate 35
Do. Lithotomy and Lithotrity 35
Do. on Urinary Organs 35
Tomes' Dental Surgery 36

SURGERY—*continued.*

PAGE
Wade on Stricture 37
Webb's Surgeon's Ready Rules 38
Wilson on Skin Diseases 39
Do. Portraits of Skin Diseases 39

VETERINARY MEDICINE.

Armatage's Emergencies .. 7
Blaine's Veterinary Art 10
Bourguignon on the Cattle Plague 10
Haycock on Shoeing Horses .. 19
Tuson's Pharmacopœia 36

WOMEN AND CHILDREN, Diseases of.

Bennet on Uterus 9
Ellis on Children 15
Eyre's Practical Remarks .. 15
Harrison on Children 19
Hood on Scarlet Fever, &c. .. 21
Kiwisch (ed. by Clay) on Ovaries 13
Lee's Ovarian & Uterine Diseases 24
Do. on Speculum 24
Norton on Infantile Diseases .. 27
Seymour on Ovaria 32
Tilt on Uterine Inflammation .. 36
Do. Uterine Therapeutics .. 36
Do. on Change of Life 36
Underwood on Children 36
West on Women 38
Wright on Uterine Disorders .. 39

TO BE COMPLETED IN TWELVE PARTS, 4TO., AT 7*s.* 6*d.* PER PART.

PARTS I. & II. NOW READY.

A DESCRIPTIVE TREATISE

ON THE

NERVOUS SYSTEM OF MAN,

WITH THE MANNER OF DISSECTING IT.

BY LUDOVIC HIRSCHFELD,

DOCTOR OF MEDICINE OF THE UNIVERSITIES OF PARIS AND WARSAW, PROFESSOR OF ANATOMY TO THE FACULTY OF MEDICINE OF WARSAW;

Edited in English (from the French Edition of 1866*)*

BY ALEXANDER MASON MACDOUGAL, F.R.C.S.,

WITH

AN ATLAS OF ARTISTICALLY-COLOURED ILLUSTRATIONS,

Embracing the Anatomy of the entire Cerebro-Spinal and Sympathetic Nervous Centres and Distributions in their accurate relations with all the important Constituent Parts of the Human Economy, and embodied in a series of 56 Single and 9 Double Plates, comprising 197 Illustrations,

Designed from Dissections prepared by the Author, and Drawn on Stone by

J. B. LÉVEILLÉ.

WILLIAM ACTON, M.R.C.S.

I.

A PRACTICAL TREATISE ON DISEASES OF THE URINARY AND GENERATIVE ORGANS IN BOTH SEXES. Third Edition. 8vo. cloth, £1. 1*s*. With Plates, £1. 11*s*. 6*d*. The Plates alone, limp cloth, 10*s*. 6*d*.

II.

THE FUNCTIONS AND DISORDERS OF THE REPRODUCTIVE ORGANS IN CHILDHOOD, YOUTH, ADULT AGE, AND ADVANCED LIFE, considered in their Physiological, Social, and Moral Relations. Fourth Edition. 8vo. cloth, 10*s*. 6*d*.

III.

PROSTITUTION: Considered in its Moral, Social, and Sanitary Aspects, Second Edition, enlarged. 8vo. cloth, 12*s*.

ROBERT ADAMS, A.M., C.M., M.D.

A TREATISE ON RHEUMATIC GOUT; OR, CHRONIC RHEUMATIC ARTHRITIS. 8vo. cloth, with a Quarto Atlas of Plates, 21*s*.

WILLIAM ADAMS, F.R.C.S.

I.

ON THE PATHOLOGY AND TREATMENT OF LATERAL AND OTHER FORMS OF CURVATURE OF THE SPINE. With Plates. 8vo. cloth, 10*s*. 6*d*.

II.

CLUBFOOT: its Causes, Pathology, and Treatment. Jacksonian Prize Essay for 1864. With 100 Engravings. 8vo. cloth, 12*s*.

III.

ON THE REPARATIVE PROCESS IN HUMAN TENDONS AFTER SUBCUTANEOUS DIVISION FOR THE CURE OF DEFORMITIES. With Plates. 8vo. cloth, 6*s*.

IV.

SKETCH OF THE PRINCIPLES AND PRACTICE OF SUBCUTANEOUS SURGERY. 8vo. cloth, 2*s*. 6*d*.

WILLIAM ADDISON, F.R.C.P., F.R.S.

I.

CELL THERAPEUTICS. 8vo. cloth, 4*s*.

II.

ON HEALTHY AND DISEASED STRUCTURE, AND THE TRUE PRINCIPLES OF TREATMENT FOR THE CURE OF DISEASE, ESPECIALLY CONSUMPTION AND SCROFULA, founded on MICROSCOPICAL ANALYSIS. 8vo. cloth, 12*s*.

C. J. B. ALDIS, M.D., F.R.C.P.

AN INTRODUCTION TO HOSPITAL PRACTICE IN VARIOUS COMPLAINTS; with Remarks on their Pathology and Treatment. 8vo. cloth, 5*s*. 6*d*.

SOMERVILLE SCOTT ALISON, M.D.EDIN., F.R.C.P.

THE PHYSICAL EXAMINATION OF THE CHEST IN PULMONARY CONSUMPTION, AND ITS INTERCURRENT DISEASES. With Engravings. 8vo. cloth, 12*s*.

JULIUS ALTHAUS, M.D., M.R.C.P.

ON EPILEPSY, HYSTERIA, AND ATAXY. Cr. 8vo. cloth, 4*s.*

THE ANATOMICAL REMEMBRANCER; OR, COMPLETE POCKET ANATOMIST. Sixth Edition, carefully Revised. 32mo. cloth, 3*s.* 6*d.*

MOCALL ANDERSON, M.D., F.F.P.S.

I.

THE PARASITIC AFFECTIONS OF THE SKIN. Second Edition. With Engravings. 8vo. cloth, 7*s.* 6*d.*

II.

ECZEMA. Second Edition. 8vo. cloth, 6*s.*

III.

PSORIASIS AND LEPRA. With Chromo-lithograph. 8vo. cloth, 5*s.*

J. T. ARLIDGE, M.D.LOND., F.R.C.P.

ON THE STATE OF LUNACY AND THE LEGAL PROVISION FOR THE INSANE; with Observations on the Construction and Organisation of Asylums. 8vo. cloth, 7*s.*

GEORGE ARMATAGE, M.R.C.V.S.

THE VETERINARIAN'S POCKET REMEMBRANCER: containing concise directions for the Treatment of Urgent or Rare Cases, embracing Semeiology, Diagnosis, Prognosis, Surgery, Therapeutics, Detection of Poisons, Hygiene, &c. Post 18mo., 3*s.*

ALEXANDER ARMSTRONG, M.D., F.R.C.P., R.N.

OBSERVATIONS ON NAVAL HYGIENE AND SCURVY. More particularly as the latter appeared during a Polar Voyage. 8vo. cloth, 5*s.*

T. J. ASHTON, M.R.C.S.

I.

ON THE DISEASES, INJURIES, AND MALFORMATIONS OF THE RECTUM AND ANUS. Fourth Edition. 8vo. cloth, 8*s.*

II.

PROLAPSUS, FISTULA IN ANO, AND OTHER DISEASES OF THE RECTUM; their Pathology and Treatment. Third Edition. Post 8vo. cloth, 3*s.* 6*d.*

THOS. J. AUSTIN, M.R.C.S.ENG.

A PRACTICAL ACCOUNT OF GENERAL PARALYSIS: Its Mental and Physical Symptoms, Statistics, Causes, Seat, and Treatment. 8vo. cloth, 6*s.*

A. W. BARCLAY, M.D., F.R.C.P.

I.

A MANUAL OF MEDICAL DIAGNOSIS. Second Edition. Foolscap 8vo. cloth, 8*s.* 6*d.*

II.

MEDICAL ERRORS.—Fallacies connected with the Application of the Inductive Method of Reasoning to the Science of Medicine. Post 8vo. cloth, 5*s.*

III.

GOUT AND RHEUMATISM IN RELATION TO DISEASE OF THE HEART. Post 8vo. cloth, 5*s.*

G. H. BARLOW, M.D., F.R.C.P.

A MANUAL OF THE PRACTICE OF MEDICINE. Second Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

ROBERT BARNES, M.D., F.R.C.P.

LECTURES ON OBSTETRIC OPERATIONS, INCLUDING THE TREATMENT OF HÆMORRHAGE, and forming a Guide to the Management of Difficult Labour. With nearly 100 Engravings. 8vo. cloth, 15*s.*

E. BASCOME, M.D.

A HISTORY OF EPIDEMIC PESTILENCES, FROM THE EARLIEST AGES. 8vo. cloth, 8*s.*

W. R. BASHAM, M.D., F.R.C.P.

I.

RENAL DISEASES; a CLINICAL GUIDE to their DIAGNOSIS and TREATMENT. 8vo. cloth, 7*s.*

II.

ON DROPSY, AND ITS CONNECTION WITH DISEASES OF THE KIDNEYS, HEART, LUNGS AND LIVER. With 16 Plates. Third Edition. 8vo. cloth, 12*s.* 6*d.*

FREDERIC BATEMAN, M.D., M.R.C.P.

APHASIA OR LOSS OF SPEECH, and the LOCALISATION of the FACULTY of ARTICULATE LANGUAGE. 8vo., 7*s.*

H. F. BAXTER, M.R.C.S.L.

ON ORGANIC POLARITY; showing a Connexion to exist between Organic Forces and Ordinary Polar Forces. Crown 8vo. cloth, 5*s.*

LIONEL J. BEALE, M.R.C.S.

I.

HEALTH AND LONGEVITY. Second Edition. Foolscap 8vo., 3*s.* 6*d.*

II.

THE LAWS OF HEALTH IN THEIR RELATIONS TO MIND AND BODY. A Series of Letters from an Old Practitioner to a Patient. Post 8vo. cloth, 7*s.* 6*d.*

LIONEL S. BEALE, M.B., F.R.S., F.R.C.P.

I.

ON KIDNEY DISEASES, URINARY DEPOSITS, AND CALCULOUS DISORDERS. Third Edition, much Enlarged. With 70 Plates. 8vo. cloth, 25*s.*

II.

THE MICROSCOPE, IN ITS APPLICATION TO PRACTICAL MEDICINE. Third Edition. With 58 Plates. 8vo. cloth, 16*s.*

III.

PROTOPLASM; OR, LIFE, MATTER AND MIND. Second Edition. With 8 Plates. Crown 8vo. cloth, 6*s.* 6*d.*

IV.

DISEASE GERMS; their SUPPOSED NATURE. An ORIGINAL INVESTIGATION. With Plates. Crown 8vo., 3*s.* 6*d.*

HENRY BEASLEY.

I.

THE BOOK OF PRESCRIPTIONS; containing 3000 Prescriptions. Collected from the Practice of the most eminent Physicians and Surgeons, English and Foreign. Third Edition. 18mo. cloth, 6*s*.

II.

THE DRUGGIST'S GENERAL RECEIPT-BOOK: comprising a copious Veterinary Formulary and Table of Veterinary Materia Medica; Patent and Proprietary Medicines, Druggists' Nostrums, &c.; Perfumery, Skin Cosmetics, Hair Cosmetics, and Teeth Cosmetics; Beverages, Dietetic Articles, and Condiments; Trade Chemicals, Miscellaneous Preparations and Compounds used in the Arts, &c.; with useful Memoranda and Tables. Sixth Edition. 18mo. cloth, 6*s*.

III.

THE POCKET FORMULARY AND SYNOPSIS OF THE BRITISH AND FOREIGN PHARMACOPŒIAS; comprising standard and approved Formulæ for the Preparations and Compounds employed in Medical Practice. Eighth Edition, corrected and enlarged. 18mo. cloth, 6*s*.

HENRY BENNET, M.D.

I.

A PRACTICAL TREATISE ON UTERINE DISEASES. Fourth Edition, revised, with Additions. 8vo. cloth, 16*s*.

II.

WINTER AND SPRING ON THE SHORES OF THE MEDITERRANEAN: OR, THE RIVIERA, MENTONE, ITALY, CORSICA, SICILY, ALGERIA, SPAIN, AND BIARRITZ, AS WINTER CLIMATES. Fourth Edition, with numerous Plates, Maps, and Wood Engravings. Post 8vo. cloth, 12*s*.

ROBERT BENTLEY, F.L.S.

A MANUAL OF BOTANY. With nearly 1,200 Engravings on Wood. Second Edition. Fcap. 8vo. cloth, 12*s*. 6*d*.

ALBERT J. BERNAYS, PH.D., F.C.S.

NOTES FOR STUDENTS IN CHEMISTRY; being a Syllabus compiled from the Manuals of Miller, Fownes, Berzelius, Gerhardt, Gorup-Besanez, &c. Fifth Edition. Fcap. 8vo. cloth, 3*s*. 6*d*.

HENRY HEATHER BIGG.

ORTHOPRAXY: a complete Guide to the Modern Treatment of Deformities by Mechanical Appliances. With 300 Engravings. Second Edition. Post 8vo. cloth, 10*s*.

S. B. BIRCH M.D., M.R.C.P.

I.

OXYGEN: ITS ACTION, USE, AND VALUE IN THE TREATMENT OF VARIOUS DISEASES OTHERWISE INCURABLE OR VERY INTRACTABLE. Second Edition. Post 8vo. cloth, 3*s*. 6*d*.

II.

CONSTIPATED BOWELS: the Various Causes and the Different Means of Cure. Third Edition. Post 8vo. cloth, 3*s*. 6*d*.

GOLDING BIRD, M.D., F.R.S.

URINARY DEPOSITS; THEIR DIAGNOSIS, PATHOLOGY, AND THERAPEUTICAL INDICATIONS. With Engravings. Fifth Edition. Edited by E. LLOYD BIRKETT, M.D. Post 8vo. cloth, 10*s.* 6*d.*

JOHN BISHOP, F.R.O.S., F.R.S.

I.

ON DEFORMITIES OF THE HUMAN BODY, their Pathology and Treatment. With Engravings on Wood. 8vo. cloth, 10*s.*

II.

ON ARTICULATE SOUNDS, AND ON THE CAUSES AND CURE OF IMPEDIMENTS OF SPEECH. 8vo. cloth, 4*s.*

BLAINE.

OUTLINES OF THE VETERINARY ART; OR, A TREATISE ON THE ANATOMY, PHYSIOLOGY, AND DISEASES OF THE HORSE, NEAT CATTLE, AND SHEEP. Seventh Edition. By Charles Steel, M.R.C.V.S.L. With Plates. 8vo. cloth, 18*s.*

O. L. BLOXAM.

I.

CHEMISTRY, INORGANIC AND ORGANIC; with Experiments and a Comparison of Equivalent and Molecular Formulæ. With 276 Engravings on Wood. 8vo. cloth, 16*s.*

II.

LABORATORY TEACHING; OR PROGRESSIVE EXERCISES IN PRACTICAL CHEMISTRY. With 89 Engravings. Crown, 8vo. cloth, 5*s.* 6*d.*

HONORÉ BOURQUIGNON, M.D.

ON THE CATTLE PLAGUE; OR, CONTAGIOUS TYPHUS IN HORNED CATTLE: its History, Origin, Description, and Treatment. Post 8vo. 5*s.*

JOHN E. BOWMAN, & O. L. BLOXAM.

I.

PRACTICAL CHEMISTRY, including Analysis. With numerous Illustrations on Wood. Fifth Edition. Foolscap 8vo. cloth, 6*s.* 6*d.*

II.

MEDICAL CHEMISTRY; with Illustrations on Wood. Fourth Edition, carefully revised. Fcap. 8vo. cloth, 6*s.* 6*d.*

P. MURRAY BRAIDWOOD, M.D. EDIN.

ON PYÆMIA, OR SUPPURATIVE FEVER: the Astley Cooper Prize Essay for 1868. With 12 Plates. 8vo. cloth, 10*s.* 6*d.*

JAMES BRIGHT, M.D.

ON DISEASES OF THE HEART, LUNGS, & AIR PASSAGES; with a Review of the several Climates recommended in these Affections. Third Edition. Post 8vo. cloth, 9*s.*

WILLIAM BRINTON, M.D., F.R.S.

I.

THE DISEASES OF THE STOMACH, with an Introduction on its Anatomy and Physiology; being Lectures delivered at St. Thomas's Hospital. Second Edition. 8vo. cloth, 10*s.* 6*d.*

II.

INTESTINAL OBSTRUCTION. Edited by DR. BUZZARD. Post 8vo. cloth, 5*s.*

BERNARD E. BRODHURST, F.R.C.S.

I.

CURVATURES OF THE SPINE: their Causes, Symptoms, Pathology, and Treatment. Second Edition. Roy. 8vo. cloth, with Engravings, 7*s.* 6*d.*

II.

ON THE NATURE AND TREATMENT OF CLUBFOOT AND ANALOGOUS DISTORTIONS involving the TIBIO-TARSAL ARTICULATION. With Engravings on Wood. 8vo. cloth, 4*s.* 6*d.*

III.

PRACTICAL OBSERVATIONS ON THE DISEASES OF THE JOINTS INVOLVING ANCHYLOSIS, and on the TREATMENT for the RESTORATION of MOTION. Third Edition, much enlarged, 8vo. cloth, 4*s.* 6*d.*

CHARLES BROOKE, M.A., M.B., F.R.S.

ELEMENTS OF NATURAL PHILOSOPHY. Based on the Work of the late Dr. Golding Bird. Sixth Edition. With 700 Engravings. Fcap. 8vo. cloth, 12*s.* 6*d.*

T. L. BRUNTON, B.SC., M.B.

ON DIGITALIS. With some Observations on the Urine. Fcap. 8vo. cloth, 4*s.* 6*d.*

THOMAS BRYANT, F.R.C.S.

I.

ON THE DISEASES AND INJURIES OF THE JOINTS. CLINICAL AND PATHOLOGICAL OBSERVATIONS. Post 8vo. cloth, 7*s.* 6*d.*

II.

CLINICAL SURGERY. Parts I. to VII. 8vo., 3*s.* 6*d.* each.

FLEETWOOD BUCKLE, M.D., L.R.C.P.LOND.

VITAL AND ECONOMICAL STATISTICS OF THE HOSPITALS, INFIRMARIES, &c., OF ENGLAND AND WALES. Royal 8vo. 5*s.*

JOHN CHARLES BUCKNILL, M.D., F.R.C.P., F.R.S., & DANIEL H. TUKE, M.D.

A MANUAL OF PSYCHOLOGICAL MEDICINE: containing the History, Nosology, Description, Statistics, Diagnosis, Pathology, and Treatment of Insanity. Second Edition. 8vo. cloth, 15*s.*

GEORGE BUDD, M.D., F.R.C.P., F.R.S.

I.

ON DISEASES OF THE LIVER.

Illustrated with Coloured Plates and Engravings on Wood. Third Edition. 8vo. cloth, 16*s.*

II.

ON THE ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH. 8vo. cloth, 9*s.*

G. W. CALLENDER, F.R.C.S.

FEMORAL RUPTURE: Anatomy of the Parts concerned. With Plates. 8vo. cloth, 4*s.*

JOHN M. CAMPLIN, M.D., F.L.S.

ON DIABETES, AND ITS SUCCESSFUL TREATMENT. Third Edition, by Dr. Glover. Fcap. 8vo. cloth, 3*s.* 6*d.*

ROBERT B. CARTER, F.R.C.S.

ON THE INFLUENCE OF EDUCATION AND TRAINING IN PREVENTING DISEASES OF THE NERVOUS SYSTEM. Fcap. 8vo., 6*s.*

W. B. CARPENTER, M.D., F.R.S.

I.

PRINCIPLES OF HUMAN PHYSIOLOGY. With nearly 300 Illustrations on Steel and Wood. Seventh Edition. Edited by Mr. HENRY POWER. 8vo. cloth, 28*s.*

II.

A MANUAL OF PHYSIOLOGY. With 252 Illustrations on Steel and Wood. Fourth Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

III.

THE MICROSCOPE AND ITS REVELATIONS. With more than 400 Engravings on Steel and Wood. Fourth Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

JOSEPH PEEL CATLOW, M.R.C.S.

ON THE PRINCIPLES OF ÆSTHETIC MEDICINE; or the Natural Use of Sensation and Desire in the Maintenance of Health and the Treatment of Disease. 8vo. cloth, 9*s.*

T. K. CHAMBERS, M.D., F.R.C.P.

I.

LECTURES, CHIEFLY CLINICAL. Fourth Edition. 8vo. cloth, 14*s.*

II.

THE INDIGESTIONS OR DISEASES OF THE DIGESTIVE ORGANS FUNCTIONALLY TREATED. Second Edition. 8vo. cloth, 10*s.* 6*d.*

III.

SOME OF THE EFFECTS OF THE CLIMATE OF ITALY. Crown 8vo. cloth, 4*s.* 6*d.*

H. T. CHAPMAN, F.R.C.S.

I.

THE TREATMENT OF OBSTINATE ULCERS AND CUTANEOUS ERUPTIONS OF THE LEG WITHOUT CONFINEMENT. Third Edition. Post 8vo. cloth, 3*s.* 6*d.*

II.

VARICOSE VEINS: their Nature, Consequences, and Treatment, Palliative and Curative. Second Edition. Post 8vo. cloth, 3*s.* 6*d.*

JOHN CHAPMAN, M.D., M.R.C.P.

THE MEDICAL INSTITUTIONS OF THE UNITED KINGDOM; a History exemplifying the Evils of Over-Legislation. 8vo. cloth, 3*s.* 6*d.*

PYE HENRY CHAVASSE, F.R.C.S.

I.

ADVICE TO A MOTHER ON THE MANAGEMENT OF HER CHILDREN. Tenth Edition. Foolscap 8vo., 2*s.* 6*d.*

II.

COUNSEL TO A MOTHER: being a Continuation and the Completion of "Advice to a Mother." Fcap. 8vo. 2*s.* 6*d.*

III.

ADVICE TO A WIFE ON THE MANAGEMENT OF HER OWN HEALTH. With an Introductory Chapter, especially addressed to a Young Wife. Ninth Edition. Fcap. 8vo., 2*s.* 6*d.*

F. LE GROS CLARK, F.R.C.S.

I.

LECTURES ON THE PRINCIPLES OF SURGICAL DIAGNOSIS: ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS Delivered at the Royal College of Surgeons. 8vo. cloth, 10*s.* 6*d.*

II.

OUTLINES OF SURGERY; being an Epitome of the Lectures on the Principles and the Practice of Surgery delivered at St. Thomas's Hospital. Fcap. 8vo. cloth, 5*s.*

JOHN CLAY, M.R.C.S.

KIWISCH ON DISEASES OF THE OVARIES: Translated, by permission, from the last German Edition of his Clinical Lectures on the Special Pathology and Treatment of the Diseases of Women. With Notes, and an Appendix on the Operation of Ovariotomy. Royal 12mo. cloth, 16*s.*

OAKLEY COLES.

DEFORMITIES OF THE MOUTH; CONGENITAL and ACQUIRED; their Mechanical Treatment. With Coloured Plates. Second Edition, 8vo., 5*s.* 6*d.*

MAURICE H. COLLIS, M.D.DUB., F.R.C.S.I.

THE DIAGNOSIS AND TREATMENT OF CANCER AND THE TUMOURS ANALOGOUS TO IT. With coloured Plates. 8vo. cloth, 14*s.*

A. J. COOLEY.

THE CYCLOPÆDIA OF PRACTICAL RECEIPTS, PROCESSES, AND COLLATERAL INFORMATION IN THE ARTS, MANUFACTURES, PROFESSIONS, AND TRADES, INCLUDING MEDICINE, PHARMACY, AND DOMESTIC ECONOMY; designed as a General Book of Reference for the Manufacturer, Tradesman, Amateur, and Heads of Families. Fourth and greatly enlarged Edition, 8vo. cloth, 28*s.*

W. WHITE COOPER, F.R.C.S.

I.

ON WOUNDS AND INJURIES OF THE EYE. Illustrated by 17 Coloured Figures and 41 Woodcuts. 8vo. cloth, 12*s.*

II.

ON NEAR SIGHT, AGED SIGHT, IMPAIRED VISION, AND THE MEANS OF ASSISTING SIGHT. With 31 Illustrations on Wood. Second Edition. Fcap. 8vo. cloth, 7*s.* 6*d.*

S. COOPER.

A DICTIONARY OF PRACTICAL SURGERY AND ENCYCLOPÆDIA OF SURGICAL SCIENCE. New Edition, brought down to the present time. By SAMUEL A. LANE, F.R.C.S., assisted by various eminent Surgeons. Vol. I., 8vo. cloth, £1. 5*s*.

HOLMES COOTE, F.R.C.S.

A REPORT ON SOME IMPORTANT POINTS IN THE TREATMENT OF SYPHILIS. 8vo. cloth, 5*s*.

R. P. COTTON, M.D., F.R.C.P.

PHTHISIS AND THE STETHOSCOPE; OR, THE PHYSICAL SIGNS OF CONSUMPTION. Fourth Edition. Foolscap 8vo. cloth, 3*s*. 6*d*.

WALTER J. COULSON, F.R.C.S.

I.

A TREATISE ON SYPHILIS. 8vo. cloth, 10*s*.

II.

STONE IN THE BLADDER: Its Prevention, Early Symptoms, and Treatment by Lithotrity. 8vo. cloth, 6*s*.

T. B. CURLING, F.R.C.S., F.R.S.

I.

OBSERVATIONS ON DISEASES OF THE RECTUM. Third Edition. 8vo. cloth, 7*s*. 6*d*.

II.

A PRACTICAL TREATISE ON DISEASES OF THE TESTIS, SPERMATIC CORD, AND SCROTUM. Third Edition, with Engravings. 8vo. cloth, 16*s*.

WILLIAM DALE, M.D.LOND.

A COMPENDIUM OF PRACTICAL MEDICINE AND MORBID ANATOMY. With Plates, 12mo. cloth, 7*s*.

DONALD DALRYMPLE, M.P., M.R.C.P.

THE CLIMATE OF EGYPT: METEOROLOGICAL AND MEDICAL OBSERVATIONS, with Practical Hints for Invalid Travellers. Post 8vo. cloth, 4*s*.

JOHN DALRYMPLE, F.R.C.S., F.R.S.

PATHOLOGY OF THE HUMAN EYE. Complete in Nine Fasciculi: imperial 4to., 20*s*. each; half-bound morocco, gilt tops, 9*l*. 15*s*.

FRED. DAVIES, M.D., F.R.C.S.

THE UNITY OF MEDICINE: its CORRUPTIONS and DIVISIONS by LAW ESTABLISHED; their Causes, Effects and Remedy. With a Coloured Chart. Second Edition. 8vo., 10*s*.

HERBERT DAVIES, M.D., F.R.C.P.

ON THE PHYSICAL DIAGNOSIS OF DISEASES OF THE LUNGS AND HEART. Second Edition. Post 8vo. cloth, 8*s*.

JAMES G. DAVEY, M.D., M.R.C.P.

I.

THE GANGLIONIC NERVOUS SYSTEM: its Structure, Functions, and Diseases. 8vo. cloth, 9*s*.

II.

ON THE NATURE AND PROXIMATE CAUSE OF INSANITY. Post 8vo. cloth, 3*s*.

HENRY DAY, M.D., M.R.C.P.

CLINICAL HISTORIES; with Comments. 8vo. cloth, 7*s.* 6*d.*

JAMES DIXON, F.R.C.S.

A GUIDE TO THE PRACTICAL STUDY OF DISEASES OF THE EYE. Third Edition. Post 8vo. cloth, 9*s.*

HORACE DOBELL, M.D.

I.

DEMONSTRATIONS OF DISEASES IN THE CHEST, AND THEIR PHYSICAL DIAGNOSIS. With Coloured Plates. 8vo. cloth, 12*s.* 6*d.*

II.

LECTURES ON THE GERMS AND VESTIGES OF DISEASE, and on the Prevention of the Invasion and Fatality of Disease by Periodical Examinations. 8vo. cloth, 6*s.* 6*d.*

III.

ON TUBERCULOSIS: ITS NATURE, CAUSE, AND TREATMENT; with Notes on Pancreatic Juice. Second Edition. Crown 8vo. cloth, 3*s.* 6*d.*

IV.

LECTURES ON WINTER COUGH (CATARRH, BRONCHITIS, EMPHYSEMA, ASTHMA); with an Appendix on some Principles of Diet in Disease. Post 8vo. cloth, 5*s.* 6*d.*

V.

LECTURES ON THE TRUE FIRST STAGE OF CONSUMPTION. Crown 8vo. cloth, 3*s.* 6*d.*

C. TOOGOOD DOWNING, M.D.

NEURALGIA: its various Forms, Pathology, and Treatment. THE JACKSONIAN PRIZE ESSAY FOR 1850. 8vo. cloth, 10*s.* 6*d.*

ROBERT DRUITT, F.R.C.S.

THE SURGEON'S VADE-MECUM; with numerous Engravings on Wood. Tenth Edition. Foolscap 8vo. cloth, 12*s.* 6*d.*

ERNEST EDWARDS, B.A.

PHOTOGRAPHS OF EMINENT MEDICAL MEN, with brief Analytical Notices of their Works. Vols. I. and II. (24 Portraits), 4to. cloth, 24*s.* each.

CHARLES ELAM, M.D., F.R.C.P.

MEDICINE, DISEASE, AND DEATH: being an Enquiry into the Progress of Medicine as a Practical Art. 8vo. cloth, 3*s.* 6*d.*

EDWARD ELLIS, M.D.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN. With a Formulary. Crown 8vo. cloth, 6*s.*

SIR JAMES EYRE, M.D.

I.

THE STOMACH AND ITS DIFFICULTIES. Sixth Edition, by Mr. BEALE. Fcap. 8vo., 2*s.* 6*d.*

II.

PRACTICAL REMARKS ON SOME EXHAUSTING DISEASES. Second Edition. Post 8vo. cloth, 4*s.* 6*d.*

J. FAYRER, M.D., F.R.C.S., C.S.I.

CLINICAL SURGERY IN INDIA. With Engravings. 8vo. cloth, 16*s.*

SAMUEL FENWICK, M.D., F.R.C.P.

I.

THE MORBID STATES OF THE STOMACH AND DUODENUM, AND THEIR RELATIONS TO THE DISEASES OF OTHER ORGANS. With 10 Plates. 8vo. cloth, 12*s.*

II.

THE STUDENT'S GUIDE TO MEDICAL DIAGNOSIS. With 41 Engravings. Fcap. 8vo. cloth, 5*s.* 6*d.*

SIR WILLIAM FERGUSSON, BART., F.R.C.S., F.R.S.

I.

A SYSTEM OF PRACTICAL SURGERY; with numerous Illustrations on Wood. Fourth Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

II.

LECTURES ON THE PROGRESS OF ANATOMY AND SURGERY DURING THE PRESENT CENTURY. With numerous Engravings. 8vo. cloth, 10*s.* 6*d.*

SIR JOHN FIFE, F.R.C.S. AND DAVID URQUHART.

MANUAL OF THE TURKISH BATH. Heat a Mode of Cure and a Source of Strength for Men and Animals. With Engravings. Post 8vo. cloth, 5*s.*

W. H. FLOWER, F.R.C.S., F.R.S.

DIAGRAMS OF THE NERVES OF THE HUMAN BODY, exhibiting their Origin, Divisions, and Connexions, with their Distribution to the various Regions of the Cutaneous Surface, and to all the Muscles. Folio, containing Six Plates, 14*s.*

WILLIAM FLUX.

THE LAW TO REGULATE THE SALE OF POISONS WITHIN GREAT BRITAIN. Crown 8vo. cloth, 2*s.* 6*d.*

G. FOWNES, PH.D., F.R.S.

I.

A MANUAL OF CHEMISTRY; with 187 Illustrations on Wood. Tenth Edition. Fcap. 8vo. cloth, 14*s.*
Edited by H. BENCE JONES, M.D., F.R.S., and HENRY WATTS, B.A., F.R.S.

II.

CHEMISTRY, AS EXEMPLIFYING THE WISDOM AND BENEFICENCE OF GOD. Second Edition. Fcap. 8vo. cloth, 4*s.* 6*d.*

III.

INTRODUCTION TO QUALITATIVE ANALYSIS. Post 8vo. cloth, 2*s.*

D. J. T. FRANCIS, M.D., F.R.C.P.

CHANGE OF CLIMATE; considered as a Remedy in Dyspeptic, Pulmonary, and other Chronic Affections; with an Account of the most Eligible Places of Residence for Invalids, at different Seasons of the Year. Post 8vo. cloth, 8*s.* 6*d.*

W. H. FULLER, M.D., F.R.C.P.

I.

ON DISEASES OF THE LUNGS AND AIR PASSAGES. Second Edition. 8vo. cloth, 12*s.* 6*d.*

II.

ON DISEASES OF THE HEART AND GREAT VESSELS. 8vo. cloth, 7*s.* 6*d.*

III.

ON RHEUMATISM, RHEUMATIC GOUT, AND SCIATICA: their Pathology, Symptoms, and Treatment. Third Edition. 8vo. cloth, 12*s.* 6*d.*

REMIGIUS FRESENIUS.

A SYSTEM OF INSTRUCTION IN CHEMICAL ANALYSIS,

Edited by ARTHUR VACHER.

QUALITATIVE. Seventh Edition. 8vo. cloth, 9*s.*
QUANTITATIVE. Fifth Edition. 8vo. cloth, 12*s.* 6*d.*

ROBERT GALLOWAY.

I.

THE FIRST STEP IN CHEMISTRY. With numerous Engravings.

Fourth Edition. Fcap. 8vo. cloth, 6*s.* 6*d.*

II.

A KEY TO THE EXERCISES CONTAINED IN ABOVE. Fcap. 8vo., 2*s.* 6*d.*

III.

THE SECOND STEP IN CHEMISTRY; or, the Student's Guide to the Higher Branches of the Science. With Engravings. 8vo. cloth, 10*s.*

IV.

A MANUAL OF QUALITATIVE ANALYSIS. Fifth Edition.

With Engravings. Post 8vo. cloth, 8*s.* 6*d.*

V.

CHEMICAL TABLES. On Five Large Sheets, for School and Lecture Rooms. Second Edition. 4*s.* 6*d.*

J. SAMPSON GAMGEE, M.R.C.S.

HISTORY OF A SUCCESSFUL CASE OF AMPUTATION AT THE HIP-JOINT (the limb 48-in. in circumference, 99 pounds weight). With 4 Photographs. 4to cloth, 10*s.* 6*d.*

F. J. GANT, F.R.C.S.

I.

THE PRINCIPLES OF SURGERY: Clinical, Medical, and Operative. With Engravings. 8vo. cloth, 18*s.*

II.

THE IRRITABLE BLADDER: its Causes and Curative Treatment.

Second Edition, enlarged. Crown 8vo. cloth, 5*s.*

C. B. GARRETT, M.D.

IRRITATIVE DYSPEPSIA AND ITS IMPORTANT CONNECTION with IRRITATIVE CONGESTION of the WINDPIPE, and with the Origin and Progress of Consumption. Crown 8vo., 2*s.* 6*d.*

JOHN GAY, F.R.C.S.

ON VARICOSE DISEASE OF THE LOWER EXTREMITIES.

LETTSOMIAN LECTURES. With Plates. 8vo. cloth, 5*s.*

SIR DUNCAN GIBB, BART., M.D.

I.

ON DISEASES OF THE THROAT AND WINDPIPE, as reflected by the Laryngoscope. Second Edition. With 116 Engravings. Post 8vo. cloth, 10*s.* 6*d.*

II.

THE LARYNGOSCOPE IN DISEASES OF THE THROAT, with a Chapter on RHINOSCOPY. Third Edition, with Engravings. Crown 8vo., cloth, 5*s.*

C. A. GORDON, M.D., C.B.

I.

ARMY HYGIENE. 8vo. cloth, 20*s.*

II.

CHINA, FROM A MEDICAL POINT OF VIEW; IN 1860 AND 1861; With a Chapter on Nagasaki as a Sanatarium. 8vo. cloth, 10*s.* 6*d.*

WILLIAM GAIRDNER, M.D.

ON GOUT; its History, its Causes, and its Cure. Fourth Edition. Post 8vo. cloth, 8*s.* 6*d.*

MICHAEL C. GRABHAM, M.D., M.R.C.P.

THE CLIMATE AND RESOURCES OF MADEIRA, as regarding chiefly the Necessities of Consumption and the Welfare of Invalids. With Map and Engravings. Crown 8vo. cloth, 5*s.*

R. J. GRAVES, M.D., F.R.S.

STUDIES IN PHYSIOLOGY AND MEDICINE. Edited by Dr. Stokes. With Portrait and Memoir. 8vo. cloth, 14*s.*

T. GRIFFITHS.

CHEMISTRY OF THE FOUR SEASONS—Spring, Summer, Autumn, Winter. Illustrated with Engravings on Wood. Second Edition. Foolscap 8vo. cloth, 7*s.* 6*d.*

JAMES M. GULLY, M.D.

THE SIMPLE TREATMENT OF DISEASE; deduced from the Methods of Expectancy and Revulsion. 18mo. cloth, 4*s.*

W. A. GUY, M.B., F.R.S., AND JOHN HARLEY, M.D., F.R.C.P.

HOOPER'S PHYSICIAN'S VADE-MECUM: OR, MANUAL OF THE PRINCIPLES AND PRACTICE OF PHYSIC. Seventh Edition. With Engravings. Foolscap 8vo. cloth, 12*s.* 6*d.*

GUY'S HOSPITAL REPORTS. Third Series. Vol. XV., 8vo. 7*s.* 6*d.*

S. O. HABERSHON, M.D., F.R.C.P.

I.

ON DISEASES OF THE ABDOMEN, comprising those of the Stomach and other Parts of the Alimentary Canal, Œsophagus, Stomach, Cæcum, Intestines, and Peritoneum. Second Edition, with Plates. 8vo. cloth, 14*s.*

II.

ON THE INJURIOUS EFFECTS OF MERCURY IN THE TREATMENT OF DISEASE. Post 8vo. cloth, 3*s.* 6*d.*

C. RADCLYFFE HALL, F.R.C.P.

TORQUAY IN ITS MEDICAL ASPECT AS A RESORT FOR PULMONARY INVALIDS. Post 8vo. cloth, 5*s.*

MARSHALL HALL, M.D., F.R.S.

I.

PRONE AND POSTURAL RESPIRATION IN DROWNING AND OTHER FORMS OF APNŒA OR SUSPENDED RESPIRATION. Post 8vo. cloth. 5*s.*

II.

PRACTICAL OBSERVATIONS AND SUGGESTIONS IN MEDICINE. Second Series. Post 8vo. cloth, 8*s.* 6*d.*

REV. T F. HARDWICH.

A MANUAL OF PHOTOGRAPHIC CHEMISTRY. With Engravings. Seventh Edition. Foolscap 8vo. cloth, 7*s.* 6*d.*

J. BOWER HARRISON, M.D., M.R.C.P.

I.

LETTERS TO A YOUNG PRACTITIONER ON THE DISEASES OF CHILDREN. Foolscap 8vo. cloth, 3*s.*

II.

ON THE CONTAMINATION OF WATER BY THE POISON OF LEAD, and its Effects on the Human Body. Foolscap 8vo. cloth, 3*s.* 6*d.*

GEORGE HARTWIG, M.D.

I.

ON SEA BATHING AND SEA AIR. Second Edition. Fcap. 8vo., 2*s.* 6*d.*

II.

ON THE PHYSICAL EDUCATION OF CHILDREN. Fcap. 8vo., 2*s.* 6*d.*

A. H. HASSALL, M.D.

THE URINE, IN HEALTH AND DISEASE; being an Explanation of the Composition of the Urine, and of the Pathology and Treatment of Urinary and Renal Disorders. Second Edition. With 79 Engravings (23 Coloured). Post 8vo. cloth, 12*s.* 6*d.*

ALFRED HAVILAND, M.R.C.S.

CLIMATE, WEATHER, AND DISEASE; being a Sketch of the Opinions of the most celebrated Ancient and Modern Writers with regard to the Influence of Climate and Weather in producing Disease. With Four coloured Engravings. 8vo. cloth, 7*s.*

W. HAYCOCK, M.R.C.V.S.

HORSES; HOW THEY OUGHT TO BE SHOD: being a plain and practical Treatise on the Principles and Practice of the Farrier's Art. With 14 Plates. Cloth, 7*s.* 6*d.*

F. W. HEADLAND, M.D., F.R.C.P.

I.

ON THE ACTION OF MEDICINES IN THE SYSTEM. Fourth Edition. 8vo. cloth, 14*s.*

II.

A MEDICAL HANDBOOK; comprehending such Information on Medical and Sanitary Subjects as is desirable in Educated Persons. Second Thousand. Foolscap 8vo. cloth, 5*s.*

J. N. HEALE, M.D., M.R.C.P.

I.

A TREATISE ON THE PHYSIOLOGICAL ANATOMY OF THE LUNGS. With Engravings. 8vo. cloth, 8*s.*

II.

A TREATISE ON VITAL CAUSES. 8vo. cloth, 9*s.*

CHRISTOPHER HEATH, F.R.C.S.

I.

PRACTICAL ANATOMY: a Manual of Dissections. With numerous Engravings. Second Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

II.

A MANUAL OF MINOR SURGERY AND BANDAGING, FOR THE USE OF HOUSE-SURGEONS, DRESSERS, AND JUNIOR PRACTITIONERS. With Illustrations. Fourth Edition. Fcap. 8vo. cloth, 5*s.* 6*d.*

III.

INJURIES AND DISEASES OF THE JAWS. JACKSONIAN PRIZE ESSAY. With Engravings. 8vo. cloth, 12*s.*

JOHN HIGGINBOTTOM, F.R.S., F.R.C.S.E.

A PRACTICAL ESSAY ON THE USE OF THE NITRATE OF SILVER IN THE TREATMENT OF INFLAMMATION, WOUNDS, AND ULCERS. Third Edition, 8vo. cloth, 6*s.*

WILLIAM HINDS, M.D.

THE HARMONIES OF PHYSICAL SCIENCE IN RELATION TO THE HIGHER SENTIMENTS; with Observations on Medical Studies, and on the Moral and Scientific Relations of Medical Life. Post 8vo. cloth, 4*s.*

J. A. HINGESTON, M.R.C.S.

TOPICS OF THE DAY, MEDICAL, SOCIAL, AND SCIENTIFIC. Crown 8vo. cloth, 7*s.* 6*d.*

RICHARD HODGES, M.D.

THE NATURE, PATHOLOGY, AND TREATMENT OF PUERPERAL CONVULSIONS. Crown 8vo. cloth, 3*s.*

DECIMUS HODGSON, M.D.

THE PROSTATE GLAND, AND ITS ENLARGEMENT IN OLD AGE. With 12 Plates. Royal 8vo. cloth, 6*s.*

JABEZ HOGG, M.R.C.S.

A MANUAL OF OPHTHALMOSCOPIC SURGERY; being a Practical Treatise on the Use of the Ophthalmoscope in Diseases of the Eye. Third Edition. With Coloured Plates. 8vo. cloth, 10*s.* 6*d.*

LUTHER HOLDEN, F.R.C.S.

I.

HUMAN OSTEOLOGY: with Plates, showing the Attachments of the Muscles. Fourth Edition. 8vo. cloth, 16*s.*

II.

A MANUAL OF THE DISSECTION OF THE HUMAN BODY. With Engravings on Wood. Third Edition. 8vo. cloth, 16*s.*

BARNARD HOLT, F.R.C.S.

ON THE IMMEDIATE TREATMENT OF STRICTURE OF THE URETHRA. Third Edition, Enlarged. 8vo. cloth, 6*s.*

O. HOLTHOUSE, F.R.C.S.

ON HERNIAL AND OTHER TUMOURS OF THE GROIN and its NEIGHBOURHOOD; with some Practical Remarks on the Radical Cure of Ruptures. 8vo., 6*s.* 6*d.*

P. HOOD M.D.

THE SUCCESSFUL TREATMENT OF SCARLET FEVER; also, OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF CROWING INSPIRATIONS OF INFANTS. Post 8vo. cloth, 5*s.*

JOHN HORSLEY.

A CATECHISM OF CHEMICAL PHILOSOPHY; being a Familiar Exposition of the Principles of Chemistry and Physics. With Engravings on Wood. Designed for the Use of Schools and Private Teachers. Post 8vo. cloth, 6*s.* 6*d.*

JAMES A. HORTON, M.D.

PHYSICAL AND MEDICAL CLIMATE AND METEOROLOGY OF THE WEST COAST OF AFRICA. 8vo. cloth, 10*s.*

LUKE HOWARD, F.R.S.

ESSAY ON THE MODIFICATIONS OF CLOUDS. Third Edition, by W. D. and E. HOWARD. With 6 Lithographic Plates, from Pictures by Kenyon. 4to. cloth, 10*s.* 6*d.*

A. HAMILTON HOWE, M.D.

A THEORETICAL INQUIRY INTO THE PHYSICAL CAUSE OF EPIDEMIC DISEASES. Accompanied with Tables. 8vo. cloth, 7*s.*

C. W. HUFELAND.

THE ART OF PROLONGING LIFE. Second Edition. Edited by ERASMUS WILSON, F.R.S. Foolscap 8vo., 2*s.* 6*d.*

W. CURTIS HUGMAN, F.R.C.S.

ON HIP-JOINT DISEASE; with reference especially to Treatment by Mechanical Means for the Relief of Contraction and Deformity of the Affected Limb. With Plates. Re-issue, enlarged. 8vo. cloth, 3*s.* 6*d.*

J. W. HULKE, F.R.C.S., F.R.S.

A PRACTICAL TREATISE ON THE USE OF THE OPHTHALMOSCOPE. Being the Jacksonian Prize Essay for 1859. Royal 8vo. cloth, 8*s.*

HENRY HUNT, F.R.C.P.

ON HEARTBURN AND INDIGESTION. 8vo. cloth, 5*s.*

G. Y. HUNTER, M.R.C.S.

BODY AND MIND: the Nervous System and its Derangements. Fcap. 8vo. cloth, 3*s.* 6*d.*

JONATHAN HUTCHINSON, F.R.C.S.

A CLINICAL MEMOIR ON CERTAIN DISEASES OF THE EYE AND EAR, CONSEQUENT ON INHERITED SYPHILIS; with an appended Chapter of Commentaries on the Transmission of Syphilis from Parent to Offspring, and its more remote Consequences. With Plates and Woodcuts, 8vo. cloth, 9*s*.

T. H. HUXLEY, LL.D., F.R.S.

INTRODUCTION TO THE CLASSIFICATION OF ANIMALS. With Engravings. 8vo. cloth, 6*s*.

THOMAS INMAN, M.D., M.R.C.P.

I.

ON MYALGIA: ITS NATURE, CAUSES, AND TREATMENT; being a Treatise on Painful and other Affections of the Muscular System. Second Edition. 8vo. cloth, 9*s*.

II.

FOUNDATION FOR A NEW THEORY AND PRACTICE OF MEDICINE. Second Edition. Crown 8vo. cloth, 10*s*.

JAMES JAGO, M.D.OXON., A.B.CANTAB.

ENTOPTICS, WITH ITS USES IN PHYSIOLOGY AND MEDICINE. With 54 Engravings. Crown 8vo. cloth, 5*s*.

M. PROSSER JAMES, M.D., M.R.C.P.

SORE-THROAT: ITS NATURE, VARIETIES, AND TREATMENT; including the Use of the LARYNGOSCOPE as an Aid to Diagnosis. Second Edition, with numerous Engravings. Post 8vo. cloth, 5*s*.

F. E. JENCKEN, M.D., M.R.C.P.

THE CHOLERA: ITS ORIGIN, IDIOSYNCRACY, AND TREATMENT. Fcap. 8vo. cloth, 2*s*. 6*d*.

C. HANDFIELD JONES, M.B., F.R.C.P., F.R.S.

STUDIES ON FUNCTIONAL NERVOUS DISORDERS. Second Edition, much enlarged. 8vo. cloth, 18*s*.

H. BENCE JONES, M.D., F.R.C.P., D.C.L., F.R.S.

I.

LECTURES ON SOME OF THE APPLICATIONS OF CHEMISTRY AND MECHANICS TO PATHOLOGY AND THERAPEUTICS. 8vo. cloth, 12*s*.

II.

CROONIAN LECTURES ON MATTER AND FORCE. Fcap. 8vo. cloth, 5*s*.

C. HANDFIELD JONES, M.B., F.R.S., & E. H. SIEVEKING, M.D., F.R.C.P.

A MANUAL OF PATHOLOGICAL ANATOMY. Illustrated with numerous Engravings on Wood. Foolscap 8vo. cloth, 12*s*. 6*d*.

JAMES JONES, M.D., M.R.C.P.

ON THE USE OF PERCHLORIDE OF IRON AND OTHER CHALYBEATE SALTS IN THE TREATMENT OF CONSUMPTION. Crown 8vo. cloth, 3*s.* 6*d.*

T. WHARTON JONES, F.R.C.S., F.R.S.

I.

A MANUAL OF THE PRINCIPLES AND PRACTICE OF OPHTHALMIC MEDICINE AND SURGERY; with Nine Coloured Plates and 173 Wood Engravings. Third Edition, thoroughly revised. Foolscap 8vo. cloth, 12*s.* 6*d.*

II.

THE WISDOM AND BENEFICENCE OF THE ALMIGHTY, AS DISPLAYED IN THE SENSE OF VISION. Actonian Prize Essay. With Illustrations on Steel and Wood. Foolscap 8vo. cloth, 4*s.* 6*d.*

III.

DEFECTS OF SIGHT AND HEARING: their Nature, Causes, Prevention, and General Management. Second Edition, with Engravings. Fcap. 8vo. 2*s.* 6*d.*

IV.

A CATECHISM OF THE MEDICINE AND SURGERY OF THE EYE AND EAR. For the Clinical Use of Hospital Students. Fcap. 8vo. 2*s.* 6*d.*

V.

A CATECHISM OF THE PHYSIOLOGY AND PHILOSOPHY OF BODY, SENSE, AND MIND. For Use in Schools and Colleges. Fcap. 8vo., 2*s.* 6*d.*

U. J. KAY-SHUTTLEWORTH, M.P.

FIRST PRINCIPLES OF MODERN CHEMISTRY: a Manual of Inorganic Chemistry. Second Edition. Crown 8vo. cloth, 4*s.* 6*d.*

DR. LAENNEC.

A MANUAL OF AUSCULTATION AND PERCUSSION. Translated and Edited by J. B. SHARPE, M.R.C.S. 3*s.*

SIR WM. LAWRENCE, BART., F.R.S.

I.

LECTURES ON SURGERY. 8vo. cloth, 16*s.*

II.

A TREATISE ON RUPTURES. The Fifth Edition, considerably enlarged. 8vo. cloth, 16*s.*

ARTHUR LEARED, M.D., M.R.C.P.

IMPERFECT DIGESTION: ITS CAUSES AND TREATMENT. Fifth Edition. Foolscap 8vo. cloth, 4*s.* 6*d.*

HENRY LEE, F.R.C.S.

PRACTICAL PATHOLOGY. Third Edition, in 2 Vols. Containing Lectures on Suppurative Fever, Diseases of the Veins, Hæmorrhoidal Tumours, Diseases of the Rectum, Syphilis, Gonorrhœal Ophthalmia, &c. 8vo. cloth, 10*s.* each vol.

EDWIN LEE, M.D.

I.

THE EFFECT OF CLIMATE ON TUBERCULOUS DISEASE, with Notices of the chief Foreign Places of Winter Resort. Small 8vo. cloth, 4*s.* 6*d.*

II.

THE WATERING PLACES OF ENGLAND, CONSIDERED with Reference to their Medical Topography. Fourth Edition. Fcap. 8vo. cloth, 7*s.* 6*d.*

III.

THE BATHS OF FRANCE. Fourth Edition. Fcap. 8vo. cloth, 4*s.* 6*d.*

IV.

THE BATHS OF GERMANY. Fourth Edition. Post 8vo. cloth, 7*s.*

V.

THE BATHS OF SWITZERLAND. 12mo. cloth, 3*s.* 6*d.*

VI.

HOMŒOPATHY AND HYDROPATHY IMPARTIALLY APPRECIATED. Fourth Edition. Post 8vo. cloth, 3*s.*

ROBERT LEE, M.D, F.R.C.P., F.R.S.

I.

CONSULTATIONS IN MIDWIFERY. Foolscap 8vo. cloth, 4*s.* 6*d.*

II.

A TREATISE ON THE SPECULUM; with Three Hundred Cases. 8vo. cloth, 4*s.* 6*d.*

III.

CLINICAL REPORTS OF OVARIAN AND UTERINE DISEASES, with Commentaries. Foolscap 8vo. cloth, 6*s.* 6*d.*

IV.

CLINICAL MIDWIFERY: comprising the Histories of 545 Cases of Difficult, Preternatural, and Complicated Labour, with Commentaries. Second Edition. Foolscap 8vo. cloth, 5*s.*

WM. LEISHMAN, M.D., F.F.P.S.

THE MECHANISM OF PARTURITION: An Essay, Historical and Critical. With Engravings. 8vo. cloth, 5*s.*

F. HARWOOD LESOHER.

THE ELEMENTS OF PHARMACY. 8vo. cloth, 7*s.* 6*d.*

ROBERT LISTON, F.R.S.

PRACTICAL SURGERY. Fourth Edition. 8vo. cloth, 22*s.*

D. D. LOGAN, M.D., M.R.C.P.LOND.

ON OBSTINATE DISEASES OF THE SKIN. Fcap. 8vo. cloth, 2*s.* 6*d.*

LONDON HOSPITAL.

CLINICAL LECTURES AND REPORTS BY THE MEDICAL AND SURGICAL STAFF. With Illustrations. Vols. I. to IV. 8vo. cloth, 7*s.* 6*d.*

LONDON MEDICAL SOCIETY OF OBSERVATION.

WHAT TO OBSERVE AT THE BED-SIDE, AND AFTER DEATH. Published by Authority. Second Edition. Foolscap 8vo. cloth, 4*s.* 6*d.*

HENRY LOWNDES, M.R.C.S.

AN ESSAY ON THE MAINTENANCE OF HEALTH. Fcap. 8vo. cloth, 2*s.* 6*d.*

MORELL MACKENZIE, M.D. LOND., M.R.C.P.

HOARSENESS, LOSS OF VOICE, AND STRIDULOUS BREATHING in relation to NERVO-MUSCULAR AFFECTIONS of the LARYNX. Second Edition. Fully Illustrated. 8vo. 2*s.* 6*d.*

DANIEL MACLACHLAN, M.D., F.R.C.P.L.

THE DISEASES AND INFIRMITIES OF ADVANCED LIFE. 8vo. cloth, 16*s.*

A. C. MACLEOD, M.R.C.P.LOND.

ACHOLIC DISEASES; comprising Jaundice, Diarrhœa, Dysentery, and Cholera. Post 8vo. cloth, 5*s.* 6*d.*

GEORGE H. B. MACLEOD, M.D., F.R.C.S.EDIN.

I.

OUTLINES OF SURGICAL DIAGNOSIS. 8vo. cloth, 12*s.* 6*d.*

II.

NOTES ON THE SURGERY OF THE CRIMEAN WAR; with REMARKS on GUN-SHOT WOUNDS. 8vo. cloth, 10*s.* 6*d.*

WM. MACLEOD, M.D., F.R.C.P.EDIN.

THE THEORY OF THE TREATMENT OF DISEASE ADOPTED AT BEN RHYDDING. Fcap. 8vo. cloth, 2*s.* 6*d.*

JOSEPH MACLISE, F.R.C.S.

I.

SURGICAL ANATOMY. A Series of Dissections, illustrating the Principal Regions of the Human Body. Second Edition, folio, cloth, £3. 12*s.*; half-morocco, £4. 4*s.*

II.

ON DISLOCATIONS AND FRACTURES. This Work is Uniform with "Surgical Anatomy;" folio, cloth, £2. 10*s.*; half-morocco, £2. 17*s.*

N. C. MACNAMARA.

I.

A MANUAL OF THE DISEASES OF THE EYE. With Coloured Plates. Fcap. 8vo. cloth, 12*s.* 6*d.*

II.

A TREATISE ON ASIATIC CHOLERA; with Maps. 8vo. cloth, 16*s.*

WM. MARCET, M.D., F.R.C.P., F.R.S.

ON CHRONIC ALCOHOLIC INTOXICATION; with an INQUIRY INTO THE INFLUENCE OF THE ABUSE OF ALCOHOL AS A PREDISPOSING CAUSE OF DISEASE. Second Edition, much enlarged. Foolscap 8vo. cloth, 4*s.* 6*d.*

J. MACPHERSON, M.D.

CHOLERA IN ITS HOME; with a Sketch of the Pathology and Treatment of the Disease. Crown 8vo. cloth, *5s.*

W. O. MARKHAM, M.D., F.R.C.P.

I.

DISEASES OF THE HEART: THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT. Second Edition. Post 8vo. cloth, *6s.*

II.

SKODA ON AUSCULTATION AND PERCUSSION. Post 8vo. cloth, *6s.*

III.

BLEEDING AND CHANGE IN TYPE OF DISEASES. Gulstonian Lectures for 1864. Crown 8vo. *2s. 6d.*

ALEXANDER MARSDEN, M.D., F.R.C.S.

A NEW AND SUCCESSFUL MODE OF TREATING CERTAIN FORMS OF CANCER; to which is prefixed a Practical and Systematic Description of all the Varieties of this Disease. With Coloured Plates. 8vo. cloth, *6s. 6d.*

SIR RANALD MARTIN, C.B., F.R.C.S., F.R.S.

INFLUENCE OF TROPICAL CLIMATES IN PRODUCING THE ACUTE ENDEMIC DISEASES OF EUROPEANS; including Practical Observations on their Chronic Sequelæ under the Influences of the Climate of Europe. Second Edition, much enlarged. 8vo. cloth, *20s.*

P. MARTYN, M.D.LOND.

HOOPING-COUGH; ITS PATHOLOGY AND TREATMENT. With Engravings. 8vo. cloth, *2s. 6d.*

C. F. MAUNDER, F.R.C.S.

OPERATIVE SURGERY. With 158 Engravings. Post 8vo. *6s.*

R. G. MAYNE, M.D., LL.D.

I.

AN EXPOSITORY LEXICON OF THE TERMS, ANCIENT AND MODERN, IN MEDICAL AND GENERAL SCIENCE. 8vo. cloth, £2. 10*s.*

II.

A MEDICAL VOCABULARY; or, an Explanation of all Names, Synonymes, Terms, and Phrases used in Medicine and the relative branches of Medical Science. Third Edition. Fcap. 8vo. cloth, *8s. 6d.*

EDWARD MERYON, M.D., F.R.C.P.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON THE VARIOUS FORMS OF PARALYSIS. 8vo. cloth, *6s.*

W. J. MOORE, M.D.

I.

HEALTH IN THE TROPICS; or, Sanitary Art applied to Europeans in India. 8vo. cloth, *9s.*

II.

A MANUAL OF THE DISEASES OF INDIA. Fcap. 8vo. cloth, *5s.*

JAMES MORRIS, M.D.LOND.

I.

GERMINAL MATTER AND THE CONTACT THEORY: An Essay on the Morbid Poisons. Second Edition. Crown 8vo. cloth, 4*s.* 6*d.*

II.

IRRITABILITY: Popular and Practical Sketches of Common Morbid States and Conditions bordering on Disease; with Hints for Management, Alleviation, and Cure. Crown 8vo. cloth, 4*s.* 6*d.*

G. J. MULDER.

THE CHEMISTRY OF WINE. Edited by H. BENCE JONES, M.D., F.R.S. Fcap. 8vo. cloth, 6*s.*

W. MURRAY, M.D., M.R.C.P.

EMOTIONAL DISORDERS OF THE SYMPATHETIC SYSTEM OF NERVES. Crown 8vo. cloth, 3*s.* 6*d.*

W. B. MUSHET, M.B., M.R.C.P.

ON APOPLEXY, AND ALLIED AFFECTIONS OF THE BRAIN. 8vo. cloth, 7*s.*

ARTHUR B. R. MYERS, M.R.C.S.

ON THE ETIOLOGY AND PREVALENCE OF DISEASES of the HEART among SOLDIERS. With Diagrams. The "Alexander" Prize Essay. 8vo., 4*s.*

GEORGE NAYLER, F.R.C.S.

ON THE DISEASES OF THE SKIN. With Plates. 8vo. cloth, 10*s.* 6*d.*

J. BIRKBECK NEVINS, M.D.

THE PRESCRIBER'S ANALYSIS OF THE BRITISH PHARMACOPEIA of 1867. 32mo. cloth, 3*s.* 6*d.*

H. M. NOAD, PH.D., F.R.S.

THE INDUCTION COIL, being a Popular Explanation of the Electrical Principles on which it is constructed. Third Edition. With Engravings. Fcap. 8vo. cloth, 3*s.*

DANIEL NOBLE, M.D., F.R.C.P.

THE HUMAN MIND IN ITS RELATIONS WITH THE BRAIN AND NERVOUS SYSTEM. Post 8vo. cloth, 4*s.* 6*d.*

SELBY NORTON, M.D.

INFANTILE DISEASES: their Causes, Prevention, and Treatment, showing by what Means the present Mortality may be greatly reduced. Fcap. 8vo. cloth, 2*s.* 6*d.*

FRANCIS OPPERT, M.D., M.R.C.P.

I.

HOSPITALS, INFIRMARIES, AND DISPENSARIES; their Construction, Interior Arrangement, and Management, with Descriptions of existing Institutions. With 58 Engravings. Royal 8vo. cloth, 10*s.* 6*d.*

II.

VISCERAL AND HEREDITARY SYPHILIS. 8vo. cloth, 5*s.*

LANGSTON PARKER, F.R.C.S.

THE MODERN TREATMENT OF SYPHILITIC DISEASES, both Primary and Secondary; comprising the Treatment of Constitutional and Confirmed Syphilis, by a safe and successful Method. Fourth Edition, 8vo. cloth, 10*s.*

E. A. PARKES, M.D., F.R.C.P., F.R.S.

I.

A MANUAL OF PRACTICAL HYGIENE; intended especially for the Medical Officers of the Army. With Plates and Woodcuts. 3rd Edition, 8vo. cloth, 16*s*.

II.

THE URINE: ITS COMPOSITION IN HEALTH AND DISEASE, AND UNDER THE ACTION OF REMEDIES. 8vo. cloth, 12*s*.

JOHN PARKIN, M.D., F.R.C.S.

I.

THE ANTIDOTAL TREATMENT AND PREVENTION OF THE EPIDEMIC CHOLERA. Third Edition. 8vo. cloth, 7*s*. 6*d*.

II.

THE CAUSATION AND PREVENTION OF DISEASE; with the Laws regulating the Extrication of Malaria from the Surface, and its Diffusion in the surrounding Air. 8vo. cloth, 5*s*.

JAMES PART, F.R.C.S.

THE MEDICAL AND SURGICAL POCKET CASE BOOK, for the Registration of important Cases in Private Practice, and to assist the Student of Hospital Practice. Second Edition. 2*s*. 6*d*.

JOHN PATTERSON, M.D.

EGYPT AND THE NILE AS A WINTER RESORT FOR PULMONARY AND OTHER INVALIDS. Fcap. 8vo. cloth, 3*s*.

F. W. PAVY, M.D., F.R.S., F.R.C.P.

I.

DIABETES: RESEARCHES ON ITS NATURE AND TREATMENT. Second Edition. With Engravings. 8vo. cloth, 10*s*.

II.

DIGESTION: ITS DISORDERS AND THEIR TREATMENT. Second Edition. 8vo. cloth, 8*s*. 6*d*.

T. B. PEACOCK, M.D., F.R.C.P.

I.

ON MALFORMATIONS OF THE HUMAN HEART. With Original Cases and Illustrations. Second Edition. With 8 Plates. 8vo. cloth, 10*s*.

II.

ON SOME OF THE CAUSES AND EFFECTS OF VALVULAR DISEASE OF THE HEART. With Engravings. 8vo. cloth, 5*s*.

W. H. PEARSE, M.D.EDIN.

NOTES ON HEALTH IN CALCUTTA AND BRITISH EMIGRANT SHIPS, including Ventilation, Diet, and Disease. Fcap. 8vo. 2*s*.

JONATHAN PEREIRA, M.D., F.R.S.

SELECTA E PRÆSCRIPTIS. Fifteenth Edition. 24mo. cloth, 5*s*.

JAMES H. PICKFORD, M.D.

HYGIENE; or, Health as Depending upon the Conditions of the Atmosphere, Food and Drinks, Motion and Rest, Sleep and Wakefulness, Secretions, Excretions, and Retentions, Mental Emotions, Clothing, Bathing, &c. Vol. I. 8vo. cloth, 9*s*.

WILLIAM PIRRIE, M.D., C.M., F.R.S.E.

THE PRINCIPLES AND PRACTICE OF SURGERY. With numerous Engravings on Wood. Second Edition. 8vo. cloth, 24*s.*

WILLIAM PIRRIE, M.D.

ON HAY ASTHMA, AND THE AFFECTION TERMED HAY FEVER. Fcap. 8vo. cloth, 2*s.* 6*d.*

HENRY POWER, F.R.C.S., M.B.LOND.

ILLUSTRATIONS OF SOME OF THE PRINCIPAL DISEASES OF THE EYE: With an Account of their Symptoms, Pathology and Treatment. Twelve Coloured Plates. 8vo. cloth, 20*s.*

HENRY F. A. PRATT, M.D., M.R.C.P.

I.

THE GENEALOGY OF CREATION, newly Translated from the Unpointed Hebrew Text of the Book of Genesis, showing the General Scientific Accuracy of the Cosmogony of Moses and the Philosophy of Creation. 8vo. cloth, 14*s.*

II.

ON ECCENTRIC AND CENTRIC FORCE: A New Theory of Projection. With Engravings. 8vo. cloth, 10*s.*

III.

ON ORBITAL MOTION: The Outlines of a System of Physical Astronomy. With Diagrams. 8vo. cloth, 7*s.* 6*d.*

IV.

ASTRONOMICAL INVESTIGATIONS. The Cosmical Relations of the Revolution of the Lunar Apsides. Oceanic Tides. With Engravings. 8vo. cloth, 5*s.*

V.

THE ORACLES OF GOD: An Attempt at a Re-interpretation. Part I. The Revealed Cosmos. 8vo. cloth, 10*s.*

THE PRESCRIBER'S PHARMACOPŒIA; containing all the Medicines in the British Pharmacopœia, arranged in Classes according to their Action, with their Composition and Doses. By a Practising Physician. Fifth Edition. 32mo. cloth, 2*s.* 6*d.*; roan tuck (for the pocket), 3*s.* 6*d.*

JOHN ROWLISON PRETTY, M.D.

AIDS DURING LABOUR, including the Administration of Chloroform, the Management of Placenta and Post-partum Hæmorrhage. Fcap. 8vo. cloth, 4*s.* 6*d.*

P. O. PRICE, F.R.C.S.

AN ESSAY ON EXCISION OF THE KNEE-JOINT. With Coloured Plates. With Memoir of the Author and Notes by Henry Smith, F.R.C.S. Royal 8vo. cloth, 14*s.*

LAKE PRICE.

PHOTOGRAPHIC MANIPULATION: A Manual treating of the Practice of the Art, and its various Applications to Nature. With numerous Engravings. Second Edition. Crown 8vo. cloth, 6*s.* 6*d.*

W. O. PRIESTLEY, M.D., F.R.C.P.

LECTURES ON THE DEVELOPMENT OF THE GRAVID UTERUS. 8vo. cloth, 5*s.* 6*d.*

GEORGE RAINEY, M.R.C.S.

ON THE MODE OF FORMATION OF SHELLS OF ANIMALS, OF BONE, AND OF SEVERAL OTHER STRUCTURES, by a Process of Molecular Coalescence, Demonstrable in certain Artificially-formed Products. Fcap. 8vo. cloth, 4*s.* 6*d.*

F. H. RAMSBOTHAM, M.D., F.R.C.P.

THE PRINCIPLES AND PRACTICE OF OBSTETRIC MEDICINE AND SURGERY. Illustrated with One Hundred and Twenty Plates on Steel and Wood; forming one thick handsome volume. Fifth Edition. 8vo. cloth, 22*s.*

THOMAS READE, M.B.T.C.D., L.R.C.S.I.

SYPHILITIC AFFECTIONS OF THE NERVOUS SYSTEM, AND A CASE OF SYMMETRICAL MUSCULAR ATROPHY; with other Contributions to the Pathology of the Spinal Marrow. Post 8vo. cloth, 5*s.*

THEOPHILUS REDWOOD, PH. D.

A SUPPLEMENT TO THE PHARMACOPŒIA; A concise but comprehensive Dispensatory, and Manual of Facts and Formulæ, for the use of Practitioners in Medicine and Pharmacy. Third Edition. 8vo. cloth, 22*s.*

DU BOIS REYMOND.

ANIMAL ELECTRICITY; Edited by H. BENCE JONES, M.D., F.R.S. With Fifty Engravings on Wood. Foolscap 8vo. cloth, 6*s.*

J. RUSSELL REYNOLDS, M.D.LOND., F.R.C.P., F.R.S.

I.

EPILEPSY: ITS SYMPTOMS, TREATMENT, AND RELATION TO OTHER CHRONIC CONVULSIVE DISEASES. 8vo. cloth, 10*s.*

II.

THE DIAGNOSIS OF DISEASES OF THE BRAIN, SPINAL CORD, AND THEIR APPENDAGES. 8vo. cloth, 8*s.*

B. W. RICHARDSON, M.D., F.R.C.P., F.R.S.

ON THE CAUSE OF THE COAGULATION OF THE BLOOD. Being the ASTLEY COOPER PRIZE ESSAY for 1856. With a Practical Appendix. 8vo. cloth, 16*s.*

WILLIAM ROBERTS, M.D., F.R.C.P.

AN ESSAY ON WASTING PALSY; being a Systematic Treatise on the Disease hitherto described as ATROPHIE MUSCULAIRE PROGRESSIVE. With Four Plates. 8vo. cloth, *5s.*

O. H. F. ROUTH, D.M., M.R.C.P.

INFANT FEEDING, AND ITS INFLUENCE ON LIFE; Or, the Causes and Prevention of Infant Mortality. Second Edition. Fcap. 8vo. cloth, *6s.*

W. H. ROBERTSON, M.D., M.R.C.P.

I.

THE NATURE AND TREATMENT OF GOUT. 8vo. cloth, 10*s.* 6*d.*

II.

A TREATISE ON DIET AND REGIMEN. Fourth Edition. 2 vols. 12*s.* post 8vo. cloth.

JAMES ROGERS, M.D.

ON THE PRESENT STATE OF THERAPEUTICS. With some Suggestions for placing it on a more scientific basis. 8vo. cloth, 6*s.* 6*d.*

JAMES ROGERS, M.D.

ON THE PRESENT STATE OF THERAPEUTICS. With some Suggestions for placing it on a more scientific basis. 8vo. cloth, 6*s.* 6*d.*

G. R. ROWE, M.D.

NERVOUS DISEASES, LIVER AND STOMACH COMPLAINTS, LOW SPIRITS, INDIGESTION, GOUT, ASTHMA, AND DISORDERS PRODUCED BY TROPICAL CLIMATES. With Cases. Sixteenth Edition. Fcap. 8vo. 2*s.* 6*d.*

J. F. ROYLE, M.D., F.R.S., AND F. W. HEADLAND, M.D., F.R.C.P.

A MANUAL OF MATERIA MEDICA AND THERAPEUTICS. With numerous Engravings on Wood. Fifth Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

W. B. RYAN, M.D.

INFANTICIDE: ITS LAW, PREVALENCE, PREVENTION, AND HISTORY. 8vo. cloth, *5s.*

ST. GEORGE'S HOSPITAL REPORTS. Vols. I. to IV. 8vo. 7*s.* 6*d.*

T. P. SALT, BIRMINGHAM.

ON DEFORMITIES AND DEBILITIES OF THE LOWER EXTREMITIES AND THE MECHANICAL TREATMENT EMPLOYED IN THE PROMOTION OF THEIR CURE. With Plates. 8vo. cloth, 15*s.*

H. HYDE SALTER, M.D., F.R.C.P., F.R.S.

ASTHMA. Second Edition. 8vo. cloth, 10*s.*

W. H. O. SANKEY, M.D.LOND.

LECTURES ON MENTAL DISEASES. 8vo. cloth, 8*s.*

A. E. SANSOM, M.D.LOND., M.R.C.P.

CHLOROFORM: ITS ACTION AND ADMINISTRATION. A Handbook. With Engravings. Crown 8vo. cloth, *5s.*

HENRY SAVAGE, M.D.LOND., F.R.C.S.

THE SURGERY, SURGICAL PATHOLOGY, AND SURGICAL ANATOMY of the FEMALE PELVIC ORGANS, in a Series of Coloured Plates taken from Nature. With Commentaries, Notes and Cases. Second Edition, greatly enlarged. 4to., £1. 11*s.* 6*d.*

JOHN SAVORY, M.S.A.

A COMPENDIUM OF DOMESTIC MEDICINE, AND COMPANION TO THE MEDICINE CHEST; intended as a Source of Easy Reference for Clergymen, and for Families residing at a Distance from Professional Assistance. Seventh Edition. 12mo. cloth, *5s.*

HERMANN SCHACHT.

THE MICROSCOPE, AND ITS APPLICATION TO VEGETABLE ANATOMY AND PHYSIOLOGY. Edited by FREDERICK CURREY, M.A. Post 8vo. cloth, *6s.*

R. E. SCORESBY-JACKSON, M.D., F.R.S.E.

MEDICAL CLIMATOLOGY; or, a Topographical and Meteorological Description of the Localities resorted to in Winter and Summer by Invalids of various classes both at Home and Abroad. With an Isothermal Chart. Post 8vo. cloth, 12*s.*

R. H. SEMPLE M.D., M.R.C.P.

ON COUGH: its Causes, Varieties, and Treatment. With some practical Remarks on the Use of the Stethoscope as an aid to Diagnosis. Post 8vo. cloth, 4*s.* 6*d.*

E. J. SEYMOUR, M.D.

I.

ILLUSTRATIONS OF SOME OF THE PRINCIPAL DISEASES OF THE OVARIA: their Symptoms and Treatment; to which are prefixed Observations on the Structure and Functions of those parts in the Human Being and in Animals. On India paper. Folio, 16*s.*

II.

THE NATURE AND TREATMENT OF DROPSY; considered especially in reference to the Diseases of the Internal Organs of the Body, which most commonly produce it. 8vo. *5s.*

THOS. SHAPTER, M.D., F.R.C.P.

THE CLIMATE OF THE SOUTH OF DEVON, AND ITS INFLUENCE UPON HEALTH. Second Edition, with Maps. 8vo. cloth, 10*s.* 6*d.*

E. SHAW, M.R.C.S.

THE MEDICAL REMEMBRANCER; OR, BOOK OF EMERGENCIES. Fifth Edition. Edited, with Additions, by JONATHAN HUTCHINSON, F.R.C.S. 32mo. cloth, 2*s.* 6*d.*

JOHN SHEA, M.D., B.A.

A MANUAL OF ANIMAL PHYSIOLOGY With an Appendix of Questions for the B.A. London and other Examinations. With Engravings. Foolscap 8vo. cloth, *5s.* 6*d.*

FRANCIS SIBSON, M.D., F.R.C.P., F.R.S.

MEDICAL ANATOMY. With coloured Plates. Imperial folio. Complete in Seven Fasciculi. *5s.* each.

E. H. SIEVEKING, M.D., F.R.C.P.

ON EPILEPSY AND EPILEPTIFORM SEIZURES: their Causes, Pathology, and Treatment. Second Edition. Post 8vo. cloth, 10*s.* 6*d.*

FREDERICK SIMMS, M.B., M.R.C.P.

A WINTER IN PARIS: being a few Experiences and Observations of French Medical and Sanitary Matters. Fcap. 8vo. cloth, 4*s.*

E. B. SINCLAIR, M.D., F.K.Q.C.P., AND G. JOHNSTON, M.D., F.K.Q.C.P.

PRACTICAL MIDWIFERY: Comprising an Account of 13,748 Deliveries, which occurred in the Dublin Lying-in Hospital, during a period of Seven Years. 8vo. cloth, 10*s.*

J. L. SIORDET, M.B.LOND., M.R.C.P.

MENTONE IN ITS MEDICAL ASPECT. Foolscap 8vo. cloth, 2*s.* 6*d.*

ALFRED SMEE, M.R.C.S., F.R.S.

GENERAL DEBILITY AND DEFECTIVE NUTRITION; their Causes, Consequences, and Treatment. Second Edition. Fcap. 8vo. cloth, 3*s.* 6*d.*

WM. SMELLIE, M.D.

OBSTETRIC PLATES: being a Selection from the more Important and Practical Illustrations contained in the Original Work. With Anatomical and Practical Directions. 8vo. cloth, 5*s.*

HENRY SMITH, F.R.C.S.

I.

ON STRICTURE OF THE URETHRA. 8vo. cloth, 7*s.* 6*d.*

II.

HÆMORRHOIDS AND PROLAPSUS OF THE RECTUM: Their Pathology and Treatment, with especial reference to the use of Nitric Acid. Third Edition. Fcap. 8vo. cloth, 3*s.*

III.

THE SURGERY OF THE RECTUM. Lettsomian Lectures. Second Edition. Fcap. 8vo. 3*s.* 6*d.*

JOHN SMITH, M.D., F.R.C.S.EDIN.

HANDBOOK OF DENTAL ANATOMY AND SURGERY, FOR THE USE OF STUDENTS AND PRACTITIONERS. Fcap. 8vo. cloth, 3*s.* 6*d.*

J. BARKER SMITH.

PHARMACEUTICAL GUIDE TO THE FIRST AND SECOND EXAMINATIONS. Crown 8vo. cloth, 6*s.* 6*d.*

W. TYLER SMITH, M.D., F.R.C.P.

A MANUAL OF OBSTETRICS, THEORETICAL AND PRACTICAL. Illustrated with 186 Engravings. Fcap. 8vo. cloth, 12*s.* 6*d.*

JOHN SNOW, M.D.

ON CHLOROFORM AND OTHER ANÆSTHETICS: THEIR ACTION AND ADMINISTRATION. Edited, with a Memoir of the Author, by Benjamin W. Richardson, M.D. 8vo. cloth, 10*s.* 6*d.*

J. VOSE SOLOMON, F.R.C.S.

TENSION OF THE EYEBALL; GLAUCOMA: some Account of the Operations practised in the 19th Century. 8vo. cloth, 4*s*.

STANHOPE TEMPLEMAN SPEER, M.D.

PATHOLOGICAL CHEMISTRY, IN ITS APPLICATION TO THE PRACTICE OF MEDICINE. Translated from the French of MM. Becquerel and Rodier. 8vo. cloth, reduced to 8*s*.

J. K. SPENDER, M.D.LOND.

A MANUAL OF THE PATHOLOGY AND TREATMENT OF ULCERS AND CUTANEOUS DISEASES OF THE LOWER LIMBS. 8vo. cloth, 4*s*.

PETER SQUIRE.

I.

A COMPANION TO THE BRITISH PHARMACOPÆIA. Seventh Edition. 8vo. cloth, 10*s*. 6*d*.

II.

THE PHARMACOPÆIAS OF THE LONDON HOSPITALS, arranged in Groups for easy Reference and Comparison. Second Edition. 18mo. cloth, 5*s*.

JOHN STEGGALL, M.D.

I.

A MEDICAL MANUAL FOR APOTHECARIES' HALL AND OTHER MEDICAL BOARDS. Twelfth Edition. 12mo. cloth, 10*s*.

II.

A MANUAL FOR THE COLLEGE OF SURGEONS; intended for the Use of Candidates for Examination and Practitioners. Second Edition. 12mo. cloth, 10*s*.

III.

FIRST LINES FOR CHEMISTS AND DRUGGISTS PREPARING FOR EXAMINATION AT THE PHARMACEUTICAL SOCIETY. Third Edition. 18mo. cloth, 3*s*. 6*d*.

WM. STOWE, M.R.C.S.

A TOXICOLOGICAL CHART, exhibiting at one view the Symptoms, Treatment, and Mode of Detecting the various Poisons, Mineral, Vegetable, and Animal. To which are added, concise Directions for the Treatment of Suspended Animation. Twelfth Edition. revised. On Sheet, 2*s*.; mounted on Roller, 5*s*.

FRANCIS SUTTON, F.C.S.

A SYSTEMATIC HANDBOOK OF VOLUMETRIC ANALYSIS; or, the Quantitative Estimation of Chemical Substances by Measure. With Engravings. Post 8vo. cloth, 7*s*. 6*d*.

W. P. SWAIN, F.R.C.S.

INJURIES AND DISEASES OF THE KNEE-JOINT, and their Treatment by Amputation and Excision Contrasted. Jacksonian Prize Essay. With 36 Engravings. 8vo. cloth, 9*s*.

J. G. SWAYNE, M.D.

OBSTETRIC APHORISMS FOR THE USE OF STUDENTS COMMENCING MIDWIFERY PRACTICE. With Engravings on Wood. Fourth Edition. Fcap. 8vo. cloth, 3*s*. 6*d*.

SIR ALEXANDER TAYLOR, M.D., F.R.S.E.

THE CLIMATE OF PAU; with a Description of the Watering Places of the Pyrenees, and of the Virtues of their respective Mineral Sources in Disease. Third Edition. Post 8vo. cloth, 7*s.*

ALFRED S. TAYLOR, M.D., F.R.C.P., F.R.S.

I.

THE PRINCIPLES AND PRACTICE OF MEDICAL JURISPRUDENCE. With 176 Wood Engravings. 8vo. cloth, 28*s.*

II.

A MANUAL OF MEDICAL JURISPRUDENCE. Eighth Edition. With Engravings. Fcap. 8vo. cloth, 12*s.* 6*d.*

III.

ON POISONS, in relation to MEDICAL JURISPRUDENCE AND MEDICINE. Second Edition. Fcap. 8vo. cloth, 12*s.* 6*d.*

THEOPHILUS THOMPSON, M.D., F.R.C.P., F.R.S.

CLINICAL LECTURES ON PULMONARY CONSUMPTION; with additional Chapters by E. Symes Thompson, M.D. With Plates. 8vo. cloth, 7*s.* 6*d.*

ROBERT THOMAS, M.D.

THE MODERN PRACTICE OF PHYSIC; exhibiting the Symptoms, Causes, Morbid Appearances, and Treatment of the Diseases of all Climates. Eleventh Edition. Revised by Algernon Frampton, M.D. 2 vols. 8vo. cloth, 28*s.*

SIR HENRY THOMPSON, F.R.C.S.

I.

STRICTURE OF THE URETHRA AND URINARY FISTULÆ; their Pathology and Treatment. Jacksonian Prize Essay. With Plates. Third Edition. 8vo. cloth, 10*s.*

II.

THE DISEASES OF THE PROSTATE; their Pathology and Treatment. With Plates. Third Edition. 8vo. cloth, 10*s.*

III.

PRACTICAL LITHOTOMY AND LITHOTRITY; or, An Inquiry into the best Modes of removing Stone from the Bladder. With numerous Engravings, 8vo. cloth, 9*s.*

IV.

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS. With Engravings. Second Edition. Crown 8vo. cloth, 5*s.*

J. C. THOROWGOOD, M.D.LOND.

NOTES ON ASTHMA; its Nature, Forms and Treatment. Crown 8vo. cloth, 4*s.*

J. L. W. THUDICHUM, M.D., M.R.C.P.

I.

A TREATISE ON THE PATHOLOGY OF THE URINE, Including a complete Guide to its Analysis. With Plates, 8vo. cloth, 14*s.*

II.

A TREATISE ON GALL STONES: their Chemistry, Pathology, and Treatment. With Coloured Plates. 8vo. cloth, 10*s.*

E. J. TILT, M.D., M.R.C.P.

I.

ON UTERINE AND OVARIAN INFLAMMATION, AND ON THE PHYSIOLOGY AND DISEASES OF MENSTRUATION. Third Edition. 8vo. cloth, 12*s*.

II.

A HANDBOOK OF UTERINE THERAPEUTICS AND OF DISEASES OF WOMEN. Third Edition. Post 8vo. cloth, 10*s*.

III.

THE CHANGE OF LIFE IN HEALTH AND DISEASE: a Practical Treatise on the Nervous and other Affections incidental to Women at the Decline of Life. Second Edition. 8vo. cloth, 6*s*.

GODWIN W. TIMMS, M.D., M.R.C.P.

CONSUMPTION: its True Nature and Successful Treatment. Re-issue, enlarged. Crown 8vo. cloth, 10*s*.

ROBERT B. TODD, M.D., F.R.S.

I.

CLINICAL LECTURES ON THE PRACTICE OF MEDICINE. *New Edition, in one Volume, Edited by* Dr. Beale, *8vo. cloth*, 18*s*.

II.

ON CERTAIN DISEASES OF THE URINARY ORGANS, AND ON DROPSIES. Fcap. 8vo. cloth, 6*s*.

JOHN TOMES, F.R.S.

A MANUAL OF DENTAL SURGERY. With 208 Engravings on Wood. Fcap. 8vo. cloth, 12*s*. 6*d*.

JAS. M. TURNBULL, M.D., M.R.C.P.

I.

AN INQUIRY INTO THE CURABILITY OF CONSUMPTION, ITS PREVENTION, AND THE PROGRESS OF IMPROVEMENT IN THE TREATMENT. Third Edition. 8vo. cloth, 6*s*.

II.

A PRACTICAL TREATISE ON DISORDERS OF THE STOMACH with FERMENTATION; and on the Causes and Treatment of Indigestion, &c. 8vo. cloth, 6*s*.

R. V. TUSON, F.C.S.

A PHARMACOPŒIA; including the Outlines of Materia Medica and Therapeutics, for the Use of Practitioners and Students of Veterinary Medicine. Post 8vo. cloth, 7*s*.

ALEXR. TWEEDIE, M.D., F.R.C.P., F.R.S.

CONTINUED FEVERS: THEIR DISTINCTIVE CHARACTERS, PATHOLOGY, AND TREATMENT. With Coloured Plates. 8vo. cloth, 12*s*.

DR. UNDERWOOD.

TREATISE ON THE DISEASES OF CHILDREN. Tenth Edition, with Additions and Corrections by Henry Davies, M.D. 8vo. cloth, 15*s*.

VESTIGES OF THE NATURAL HISTORY OF CREATION. Eleventh Edition. Illustrated with 106 Engravings on Wood. 8vo. cloth, 7*s*. 6*d*.

J. L. C. SCHROEDER VAN DER KOLK.

THE PATHOLOGY AND THERAPEUTICS OF MENTAL DISEASES. Translated by Mr. RUDALL, F.R.C.S. 8vo. cloth, 7*s.* 6*d.*

MISS VEITCH.

HANDBOOK FOR NURSES FOR THE SICK. Crown 8vo. cloth, 2*s.* 6*d.*

ROBERT WADE, F.R.C.S.

STRICTURE OF THE URETHRA, ITS COMPLICATIONS AND EFFECTS; a Practical Treatise on the Nature and Treatment of those Affections. Fourth Edition. 8vo. cloth, 7*s.* 6*d.*

ADOLPHE WAHLTUCH, M.D.

A DICTIONARY OF MATERIA MEDICA AND THERAPEUTICS. 8vo. cloth, 15*s.*

J. WEST WALKER, M.B.LOND.

ON DIPHTHERIA AND DIPHTHERITIC DISEASES. Fcap. 8vo. cloth, 3*s.*

CHAS. WALLER, M.D.

ELEMENTS OF PRACTICAL MIDWIFERY; or, Companion to the Lying-in Room. Fourth Edition, with Plates. Fcap. cloth, 4*s.* 6*d.*

HAYNES WALTON, F.R.C.S.

SURGICAL DISEASES OF THE EYE. With Engravings on Wood. Second Edition. 8vo. cloth, 14*s.*

E. J. WARING, M.D., M.R.C.P.LOND.

I.

A MANUAL OF PRACTICAL THERAPEUTICS. Second Edition, Revised and Enlarged. Fcap. 8vo. cloth, 12*s.* 6*d.*

II.

THE TROPICAL RESIDENT AT HOME. Letters addressed to Europeans returning from India and the Colonies on Subjects connected with their Health and General Welfare. Crown 8vo. cloth, 5*s.*

A. T. H. WATERS, M.D., F.R.C.P.

I.

DISEASES OF THE CHEST. CONTRIBUTIONS TO THEIR CLINICAL HISTORY, PATHOLOGY, AND TREATMENT. With Plates. 8vo. cloth, 12*s.* 6*d.*

II.

THE ANATOMY OF THE HUMAN LUNG. The Prize Essay to which the Fothergillian Gold Medal was awarded by the Medical Society of London. Post 8vo. cloth, 6*s.* 6*d.*

III.

RESEARCHES ON THE NATURE, PATHOLOGY, AND TREATMENT OF EMPHYSEMA OF THE LUNGS, AND ITS RELATIONS WITH OTHER DISEASES OF THE CHEST. With Engravings. 8vo. cloth, 5*s.*

ALLAN WEBB, M.D., F.R.C.S.L.

THE SURGEON'S READY RULES FOR OPERATIONS IN SURGERY. Royal 8vo. cloth, 10*s.* 6*d.*

J. SOELBERG WELLS.

I.

A TREATISE ON THE DISEASES OF THE EYE. With Coloured Plates and Wood Engravings. Second Edition. 8vo. cloth, 24*s.*

II.

ON LONG, SHORT, AND WEAK SIGHT, and their Treatment by the Scientific Use of Spectacles. Third Edition. With Plates. 8vo. cloth, 6*s.*

T. SPENCER WELLS, F.R.C.S.

SCALE OF MEDICINES FOR MERCHANT VESSELS. With Observations on the Means of Preserving the Health of Seamen, &c. &c. Seventh Thousand. Fcap. 8vo. cloth, 3*s.* 6*d.*

CHARLES WEST, M.D., F.R.C.P.

LECTURES ON THE DISEASES OF WOMEN. Third Edition. 8vo. cloth, 16*s.*

J. A. WHEELER.

HAND-BOOK OF ANATOMY FOR STUDENTS OF THE FINE ARTS. With Engravings on Wood. Fcap. 8vo., 2*s.* 6*d.*

JAMES WHITEHEAD, M.D., M.R.C.P.

ON THE TRANSMISSION FROM PARENT TO OFFSPRING OF SOME FORMS OF DISEASE, AND OF MORBID TAINTS AND TENDENCIES. Second Edition. 8vo. cloth, 10*s.* 6*d.*

C. J. B. WILLIAMS, M.D., F.R.C.P., F.R.S.

PRINCIPLES OF MEDICINE: An Elementary View of the Causes, Nature, Treatment, Diagnosis, and Prognosis, of Disease. With brief Remarks on Hygienics, or the Preservation of Health. The Third Edition. 8vo. cloth, 15*s.*

FORBES WINSLOW, M.D., D.C.L.OXON.

OBSCURE DISEASES OF THE BRAIN AND MIND. Fourth Edition. Carefully Revised. Post 8vo. cloth, 10*s.* 6*d.*

T. A. WISE, M.D., F.R.C.P.EDIN.

REVIEW OF THE HISTORY OF MEDICINE AMONG ASIATIC NATIONS. Two Vols. 8vo. cloth, 16*s.*

ERASMUS WILSON, F.R.C.S., F.R.S.

I.

THE ANATOMIST'S VADE-MECUM: A SYSTEM OF HUMAN ANATOMY. With numerous Illustrations on Wood. Eighth Edition. Foolscap 8vo. cloth, 12*s.* 6*d.*

II.

ON DISEASES OF THE SKIN: A SYSTEM OF CUTANEOUS MEDICINE. Sixth Edition. 8vo. cloth, 18*s.*

THE SAME WORK; illustrated with finely executed Engravings on Steel, accurately coloured. 8vo. cloth, 36*s.*

III.

HEALTHY SKIN: A Treatise on the Management of the Skin and Hair in relation to Health. Seventh Edition. Foolscap 8vo. 2*s.* 6*d.*

IV.

PORTRAITS OF DISEASES OF THE SKIN. Folio. Fasciculi I. to XII., completing the Work. 20*s.* each. The Entire Work, half morocco, £13.

V.

THE STUDENT'S BOOK OF CUTANEOUS MEDICINE AND DISEASES OF THE SKIN. Post 8vo. cloth, 8*s.* 6*d.*

VI.

LECTURES ON EKZEMA AND EKZEMATOUS AFFECTIONS; with an Introduction on the General Pathology of the Skin, and an Appendix of Essays and Cases. 8vo. cloth, 10*s.* 6*d.*

VII.

ON SYPHILIS, CONSTITUTIONAL AND HEREDITARY; AND ON SYPHILITIC ERUPTIONS. With Four Coloured Plates. 8vo. cloth, 16*s.*

VIII.

A THREE WEEKS' SCAMPER THROUGH THE SPAS OF GERMANY AND BELGIUM, with an Appendix on the Nature and Uses of Mineral Waters. Post 8vo. cloth, 6*s.* 6*d.*

IX.

THE EASTERN OR TURKISH BATH: its History, Revival in Britain, and Application to the Purposes of Health. Foolscap 8vo., 2*s.*

G. C. WITTSTEIN.

PRACTICAL PHARMACEUTICAL CHEMISTRY: An Explanation of Chemical and Pharmaceutical Processes, with the Methods of Testing the Purity of the Preparations, deduced from Original Experiments. Translated from the Second German Edition, by STEPHEN DARBY. 18mo. cloth, 6*s.*

HENRY G. WRIGHT, M.D., M.R.C.P.

I.

UTERINE DISORDERS: their Constitutional Influence and Treatment. 8vo. cloth, 7*s.* 6*d.*

II.

HEADACHES; their Causes and their Cure. Fourth Edition. Fcap. 8vo. 2*s.* 6*d.*

CHURCHILL'S SERIES OF MANUALS.

Fcap. 8vo. cloth, 12*s.* 6*d.* each.

"We here give Mr. Churchill public thanks for the positive benefit conferred on the Medical Profession, by the series of beautiful and cheap Manuals which bear his imprint."—*British and Foreign Medical Review.*

AGGREGATE SALE, 160,000 COPIES.

ANATOMY. With numerous Engravings. Eighth Edition. By ERASMUS WILSON, F.R.C.S., F.R.S.

BOTANY. With numerous Engravings. Second Edition. By ROBERT BENTLEY, F.L.S., Professor of Botany, King's College, and to the Pharmaceutical Society.

CHEMISTRY. With numerous Engravings. Tenth Edition, 14*s.* By GEORGE FOWNES, F.R.S., H. BENCE JONES, M.D., F.R.S., and HENRY WATTS, B.A., F.R.S.

DENTAL SURGERY. With numerous Engravings. By JOHN TOMES, F.R.S.

EYE, DISEASES OF. With coloured Plates and Engravings on Wood. By C. MACNAMARA.

MATERIA MEDICA. With numerous Engravings. Fifth Edition. By J. FORBES ROYLE, M.D., F.R.S., and F. W. HEADLAND, M.D., F.R.C.P.

MEDICAL JURISPRUDENCE. With numerous Engravings. Eighth Edition. By ALFRED SWAINE TAYLOR, M.D., F.R.S.

PRACTICE OF MEDICINE. Second Edition. By G. HILARO BARLOW, M.D., M.A.

The **MICROSCOPE and its REVELATIONS.** With numerous Plates and Engravings. Fourth Edition. By W. B. CARPENTER, M.D., F.R.S.

NATURAL PHILOSOPHY. With numerous Engravings. Sixth Edition. By CHARLES BROOKE, M.B., M.A., F.R.S. *Based on the Work of the late Dr. Golding Bird.*

OBSTETRICS. With numerous Engravings. By W. TYLER SMITH, M.D., F.R.C.P.

OPHTHALMIC MEDICINE and SURGERY. With coloured Plates and Engravings on Wood. Third Edition. By T. WHARTON JONES, F.R.C.S., F.R.S.

PATHOLOGICAL ANATOMY. With numerous Engravings. By C. HANDFIELD JONES, M.B., F.R.S., and E. H. SIEVEKING, M.D., F.R.C.P.

PHYSIOLOGY. With numerous Engravings. Fourth Edition. By WILLIAM B. CARPENTER, M.D., F.R.S.

POISONS. Second Edition. By ALFRED SWAINE TAYLOR, M.D., F.R.S.

PRACTICAL ANATOMY. With numerous Engravings. Second Edition. By CHRISTOPHER HEATH, F.R.C.S.

THERAPEUTICS. Second Edition. By E. J. Waring, M.D., M.R.C.P.

Printed by BLANCHARD & SONS, 62, Millbank Street, Westminster.